

# *Enterprise Data Warehouse*

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*Executive  
Overview*



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# Executive Overview Objectives

- The EDW Executive Overview is designed to provide participants with a one-hour overview of the EDW — complete with brief demonstration.
- This workshop will enhance participants' understanding of EDW's business value and program management, in addition to demonstrating its usefulness in managing the Logistics Enterprise business areas.



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# Executive Overview Outline

- Background
- EDW Services
- Program Management
- Q&A
- Functionality (*Demo*)



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# What Is The EDW?

Background



The Enterprise Data Warehouse will establish the ***single source*** of accurate and reliable information, relative to any ***combat support*** issue, by providing intelligent information gathered and formatted from ***cross-functional*** data sources

**Developing a repository of analytical and historical data from the functional components of the GCSS-AF**

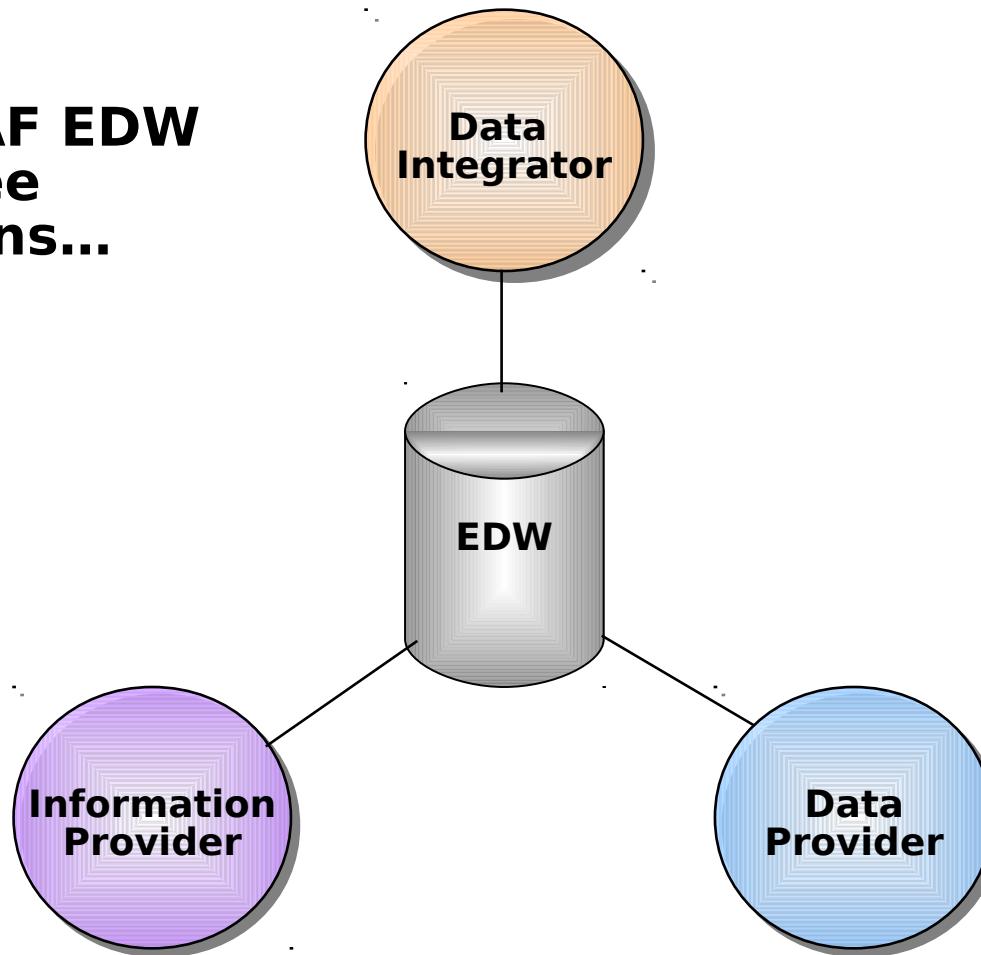


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# What Is the EDW ?

Background

**As a GCSS-AF Service, the AF EDW performs three major functions...**





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# What Is The EDW? (Continued)

## Background

As a GCSS-AF Service EDW is a:

- **Data Integrator:**
  - Acquiring data from the 22 GCSS-AF Domains
  - Gather and store enterprise-wide data in a secure and consistent manner
- **Information Provider:**
  - Transform cross-functional data into accurate, reliable and timely information
  - Enable modern tools to quickly provide clear decision support information
  - EDW provides commanders, warfighters and sustaining activities with the information needed to look beyond data to verify suspected trends, and seek out unknown ones before they restrict combat capability
- **Data Provider:**
  - On-Line Analytical Processing (OLAP) Tools
  - Management Reporting for On-Line Transactional Processing (OLTP) and Automated Information Systems (AIS) Applications (Current and History)
  - Original Equipment Manufacturer's (OEM)
    - Lockheed-Martin Aeronautics, Boeing, Northrop-Grumman, etc.

Prime Contractor for EDW: BearingPoint (formerly KPMG Consulting)

Customers: AF/IL

Version 7 Executive

Overview, FWM Workshops

MSG 18-FEB-03 (CJS for M.Riley)

and AFMC/LG  
Users: Air Force World Wide

Integrity - Service - Excellence

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# What Is The EDW? (Continued)

Background

- **EDW Located at DISA DECC-D Dayton, WPAFB, OH**
  - Operational in DISA since 19 Aug 02
  - 24/7 System Availability
  - Help Desk
  - Secure Facility
- **DISA Command Capital Investment Dollars Program Supported EDW with:**
  - FY02 - Procured 8M in Hardware
    - Upgraded EDW Software & Hardware
    - Implemented Independent Production, Test, & Dev Platforms
  - FY03 - Procuring 6M in Software & Hardware
    - Expanding Production & Development environments to accommodate EDW Growth
  - FY04 - Projected 12.2M in Capital Investment Dollars



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# What Is The EDW? (Continued)

Background

- **DISA EDW Production Environment**
  - NCR WorldMark 5255 8 Node, 4 Terabytes Database Storage
    - Expanding to 12 Node, 6 Terabytes in Aug 2003
  - Dell Application Servers supporting following COTS products:
    - Business Objects (Query & Reports)
    - MQ Series and FTP (Data Transmission)
    - Informatica & Golden Gate (Extract, Transform, and Load (ETL))
    - Oracle 8.7 (Staging Database supporting ETL)
      - Upgrade to Oracle 9i projected for Mar 03
- **DISA EDW Test Environment**
  - NCR WorldMark 5250 4 Node, 2 Terabytes Database Storage
    - Leased Hardware projecting replacement in FY04
  - Dell Application Servers supporting the same list of COTS products in production
- **DISA EDW Development Environment**
  - NCR WorldMark 4700 2 Node, 500 Gigabytes Database Storage
    - Replacing with FY03 Capital Investment Dollars
  - Dell Application Servers supporting the same list of COTS products in production



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# Operational vs. Analytical Systems

## A Brief Tutorial

Background

- **Operational System**
  - Provides On-Line Transaction Processing (OLTP)
  - Consists of operational data
  - Processes and performs business rules, edits and data validation
  - The Stock Control System (SCS) is an OLTP System
- **Analytical System**
  - Provides On-Line Analytical Processing (OLAP)
  - Consists of near-real-time data exactly as it existed in the operational systems
  - Enables organizations to gain access to existing enterprise data for analytical and decision-making functions
  - Supports ad hoc queries, reports, or decision support analysis
  - The Enterprise Data Warehouse (EDW) is an OLAP system
- **EDW does not replace operational systems**

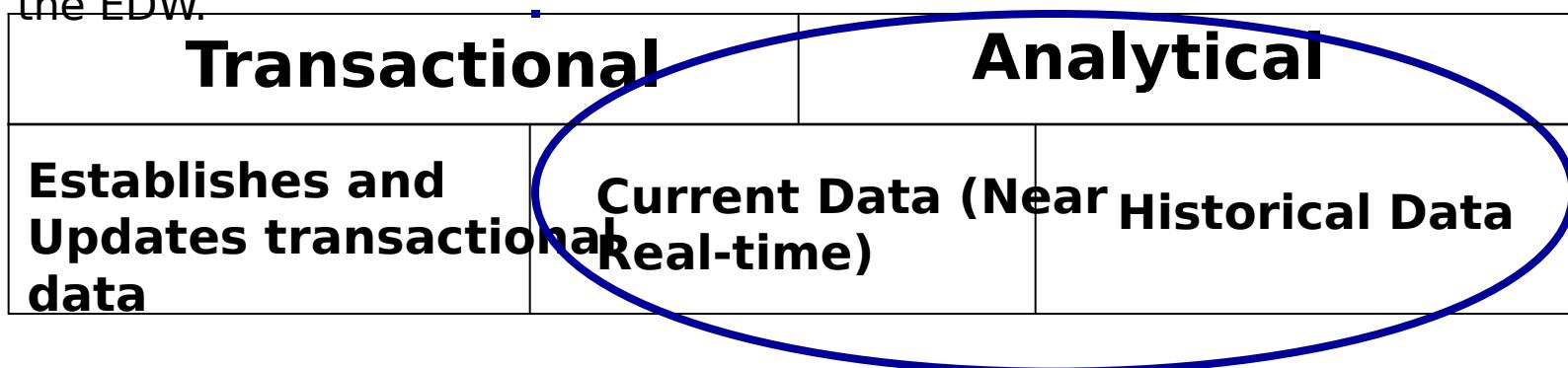


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# EDW VISION

## Background

- EDW is the single trusted, authoritative source of timely, accurate and secure logistics information for querying, reporting, and analysis to include decision support of near real-time and historical information.
- EDW gathers data from the first (OLTP) systems to support the second (OLAP). Also enables ability to move reporting and querying requirements from OLTP systems to the EDW.





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# Leveraging EDW to Transform Legacy Systems

## Background

### Current OLTP Legacy System

- Manage the activity and business rules that establish the transaction, and updates that transaction when it needs to change
- System does everything - Input, data manipulation, edits, workflow, reformatting,

### Separate Data Storage From Applications =

- Integrated, Efficient OLTP Systems
- Legacy systems leverage EDW to support analytical user requirements, interfaces, CFO, etc.

### Future OLTP Legacy System

- Focus on efficient business process
- Input, data manipulation, edits, workflow, reformatting

### EDW

- Data storage, historical storage, reporting, querying, interfaces, analysis, CFO
- Evaluate business process
- Track progress or lack of progress
- Study business process behind workflow for improvements



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# EDW As A GCSS-AF Service

## *Support of an Operational System - (SCS Example)*

- Integration effort must support enterprise integration Background
- Support of Enterprise Integration
  - Eliminates duplicate reporting schemas
  - Positions SCS for future Modernization and Single Supply
  - Prepares for SCS analytical reporting sourced from EDW
  - Consolidates SCS operational data
- Improvement of SCS performance
  - Allows SCS tuning for operational processing and response times
  - Reduces physical storage requirement within SCS
- Leveraging EDW services
  - Reduction of ICD load on SCS transactional system potentially by 29 outbound SCS interfaces to Decision Support Systems. If each interface costs approximately \$60,000, a reduction of half of the interfaces would save \$840,000.
  - Source SCS data to other OLAP systems

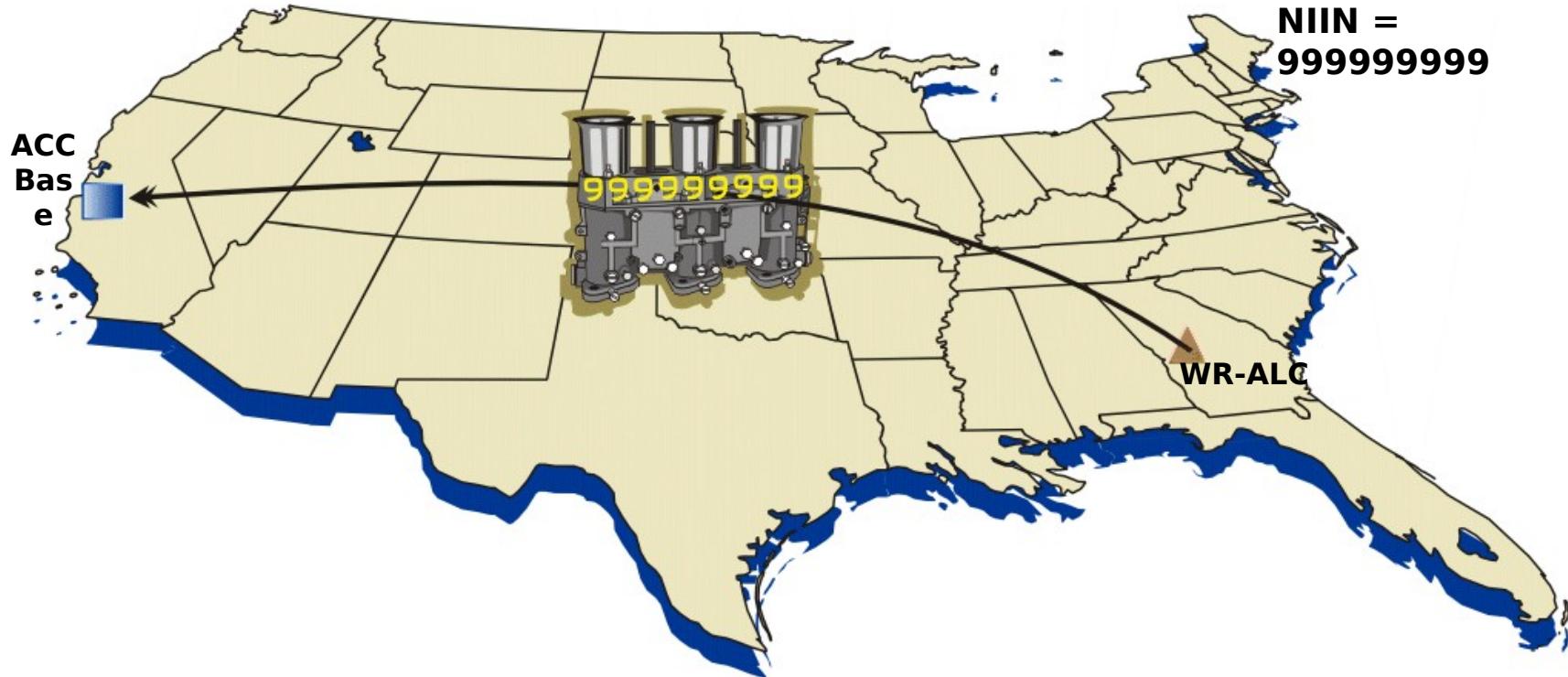


# Operational vs. Analytical Systems

Background

## Operational Systems

- MSD sold NIIN xyz to ACC from WR-ALC





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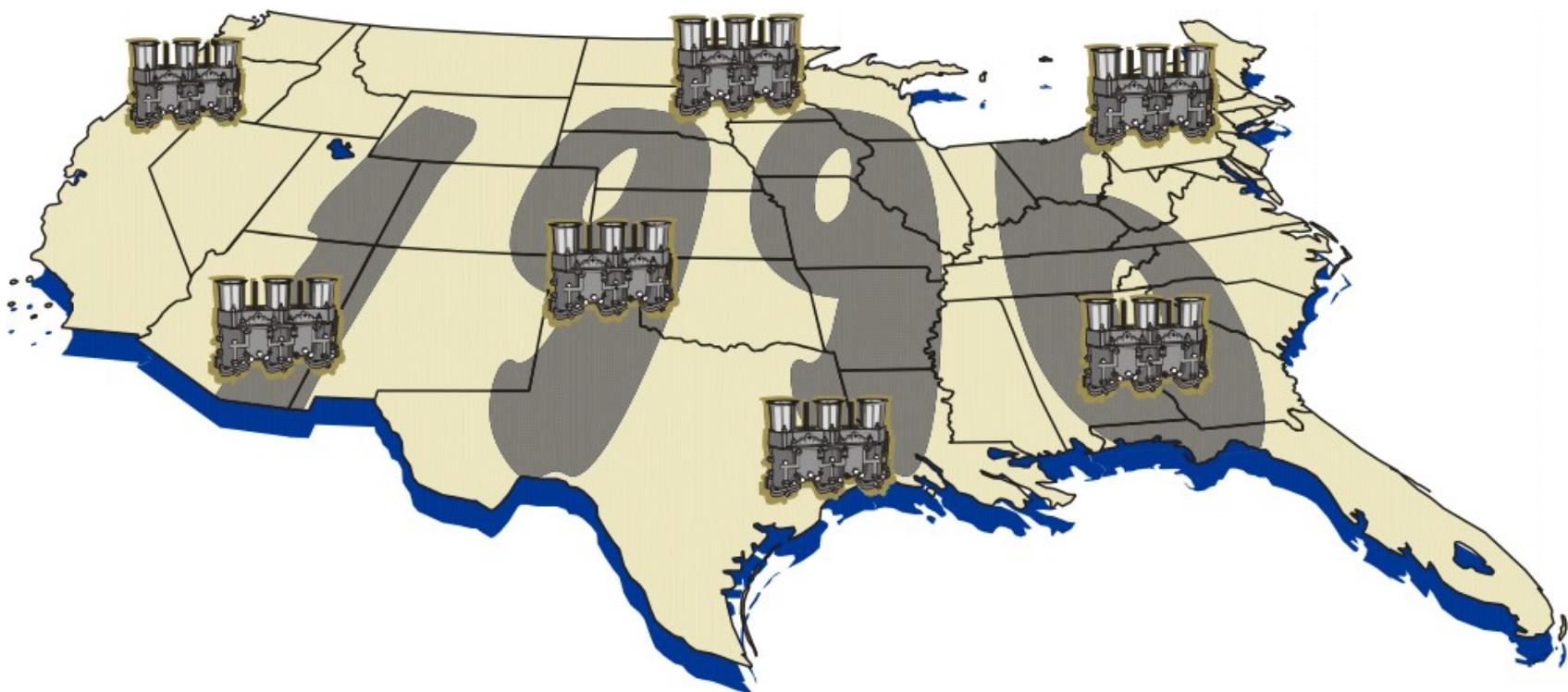
# Operational vs. Analytical Systems (Continued)

Background

## Informational Systems

- How many NIINs were sold at which ALCs in 2002?
- Should we inventory more parts at some ALCs?

How many?  
What  
percentage?  
Market share?





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# Role of Data Warehousing

Background

- **Data Integrity**
  - Data integrity is a legacy system issue
  - Data warehouses are the window into this problem
  - Data warehouse data integrity is directly related to legacy system data integrity (garbage in, garbage out)
  - Data warehouses do not fix data integrity problems, but do provide the necessary visibility
- **Replacing Systems**
  - Data warehouses do not replace operational systems
    - Role and designs are different (informational vs. business process)
    - Architecture is different (update vs. read only)
    - Data warehouse's write once read many
    - Data warehouses need operational systems for data
    - Data warehouses can improve operational systems reporting
    - Data warehouses can replace other analytical applications



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# Utility of Warehoused Data

Background

- A data warehouse converts operational data into accessible business information
- It provides users with a vehicle for analyzing and “mining” that data in search of trends, anomalies, and exceptions
- It provides users with the ability to monitor, track, and receive alerts on business processes end-to-end
- But the rigorous analysis of historical data does not necessarily lead to improvements in an organization’s performance
- Information is the necessary foundation upon which a powerful decision support system is founded

*...The base of information provided by the warehouse must be exploited in some way to drive successful mission outcomes*

# Data Warehousing Value Pyramid

Background





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# Warehousing Data is Not Enough

Background

- The possession of still more data is not an inherent good
- More data will not lead to improved Air Force operations
- In most organizations, the challenge is to make sense of the data on hand
  - Make critical decisions
  - Manage activities
  - Drive successful outcomes

*...This cannot be accomplished by continually looking in the rear-view mirror*



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# Leveraging EDW to Consolidate OLAP Tools

Background

- **Full Integration**
  - Capability of Application moved to EDW reporting/analysis tools
  - Ensure all data in EDW
  - Criteria: Simple reports, data within scope of EDW
- **Partial Integration**
  - Application runs query directly against EDW
  - User interface with either EDW or independent application
  - Criteria: All data in EDW but complex reports/analysis
- **Minimal Integration**
  - Application receives data from EDW
  - User interface remains with independent application
  - Criteria: complex reports/analysis, data outside scope of EDW



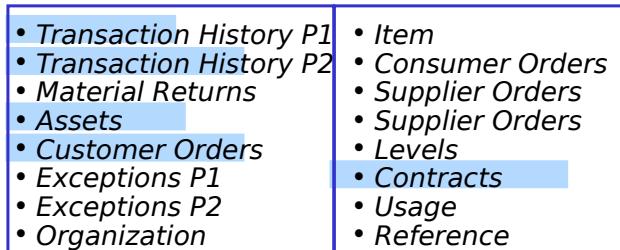
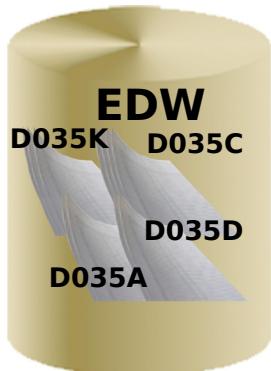
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# EDW As A GCSS-AF Service

## *Support of an Operational System - (SCS Example)*

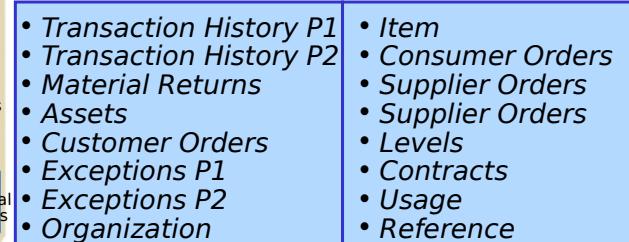
### Traditional Approach (ICDs)

- Obtain flat file data from D035K, D035A, D035C and D035D
- EDW receives a partial view of SCS data in a loosely organized, disparate format resulting in a data centric view in EDW
- SCS is forced to maintain a separate reporting schema and cannot use EDW to support any user requirements (i.e. v2.7 Reports)



### Preferred Integration Solution

- Obtain all SCS subject area data through GCSS-AF Messaging Component
- EDW receives a complete view of SCS data in a well organized, structured format resulting in an information centric view in EDW
- Avoids duplicate reporting schemas between SCS and EDW and allows SCS to leverage EDW to support analytical user requirements



Background

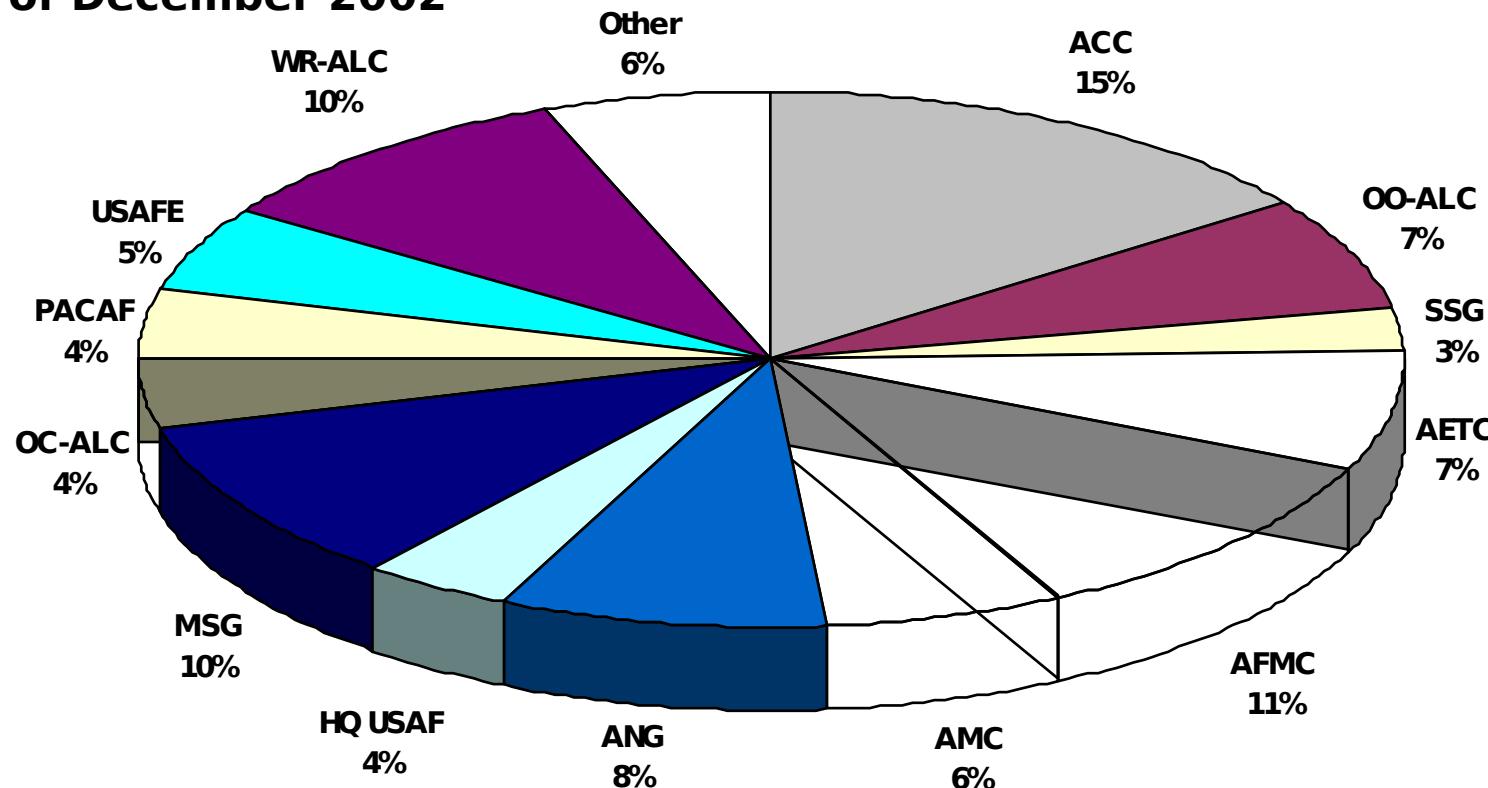


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# Current EDW User Community Metrics

## Percentage by MAJCOM and Other Organizations As of December 2002

Background



**Total Number of Users with User IDs = 822**

Other \* MAJCOM locations are defined as MAJCOMs with less than 20 users

Note: Total number of users with user IDs includes PMO and contractors

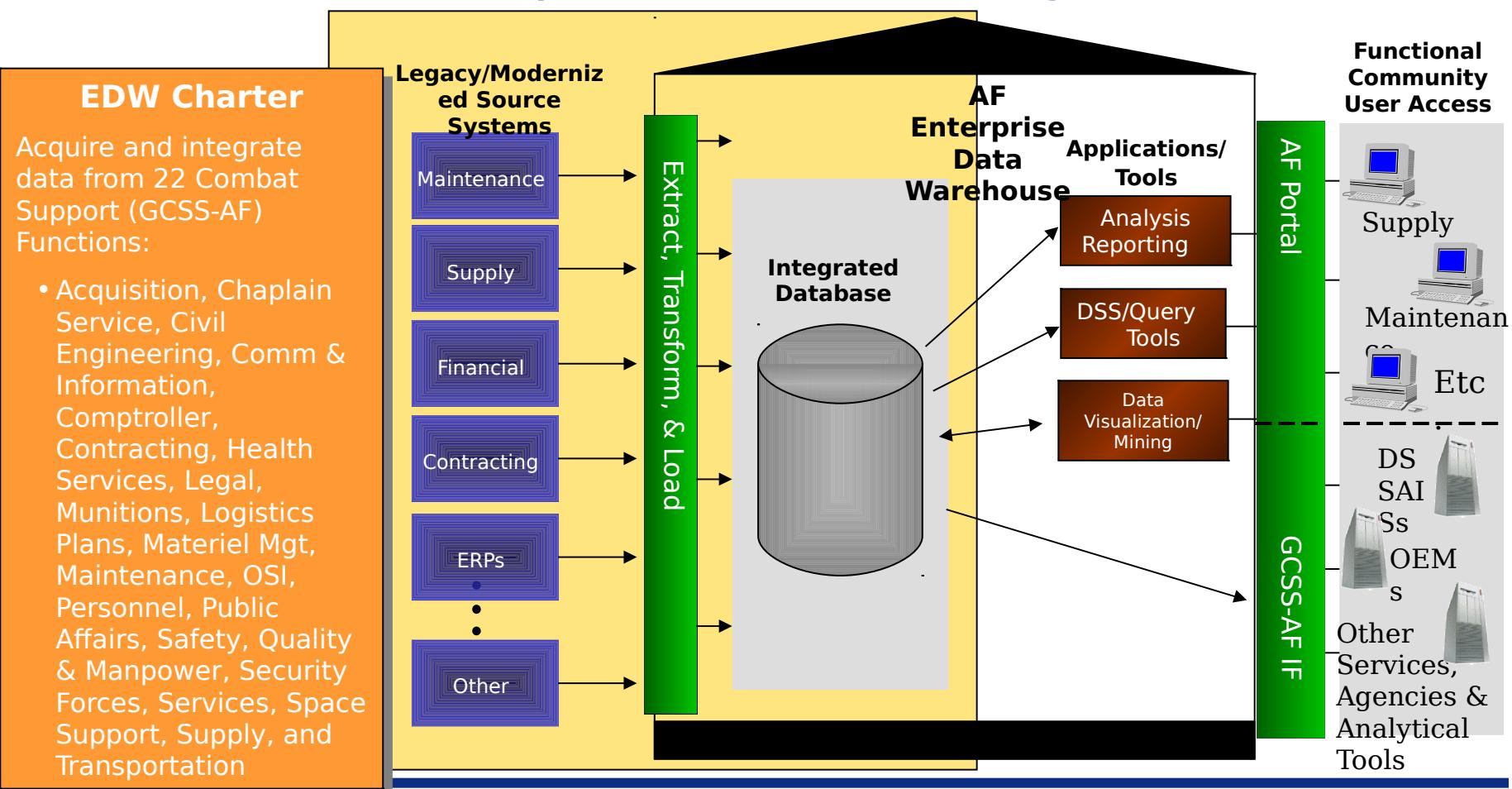


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# EDW As A Data Integrator

DW Services - Data Integrator

***A data warehouse enables organizations to gain access to existing enterprise data for analytical and decision-making functions***





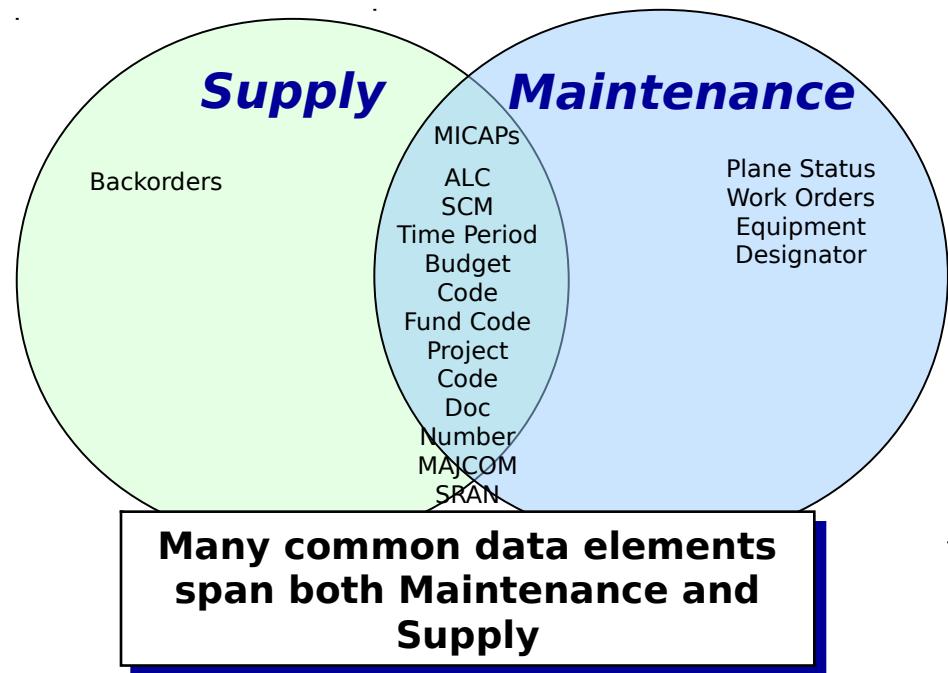
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# Supported Business Areas - The Vision

## *Cross-Functional View of EDW Today*

### DW Services - Data Integration

- ▶ **Maintenance**
  - REMIS (G099) Aircraft data
- ▶ **Supply**
  - Backorder (D035A) and MICAP (D165B) supply data
  - Additionally, EDW acquired D200A requirements inputs that are separate from the integrated warehouse





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# Supported Business Areas - The Vision (Continued)

## Cross-Functional View of EDW *(December 2002)*

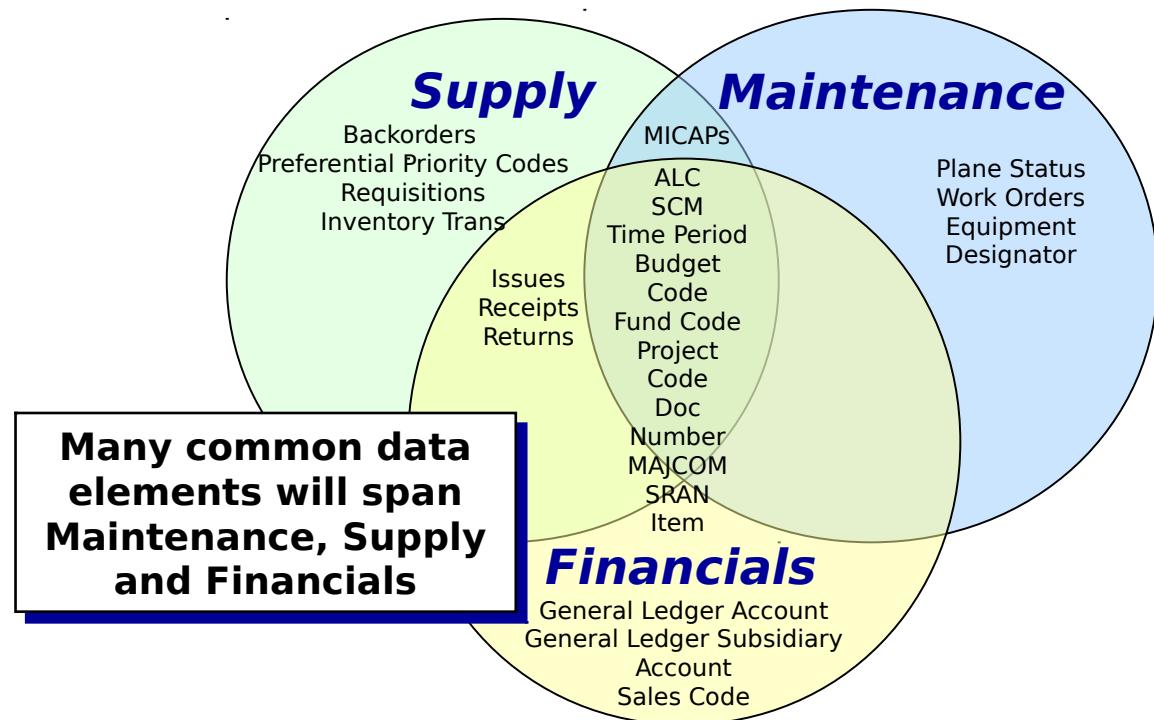
DW Services - Data Integrat

### ► **Financials**

- ALC supply-level Materiel Support Division (MSD) financials will be provided (D035J/FIABS)
- Base supply-level MSD financials will be provided (H118/SMAS)
- Combined Trial Balance financials will be provided (H054/DOLARS)

### ► **Supply**

- Daily transaction history from D002A/SBSS
- Daily snapshot of asset positions and other data





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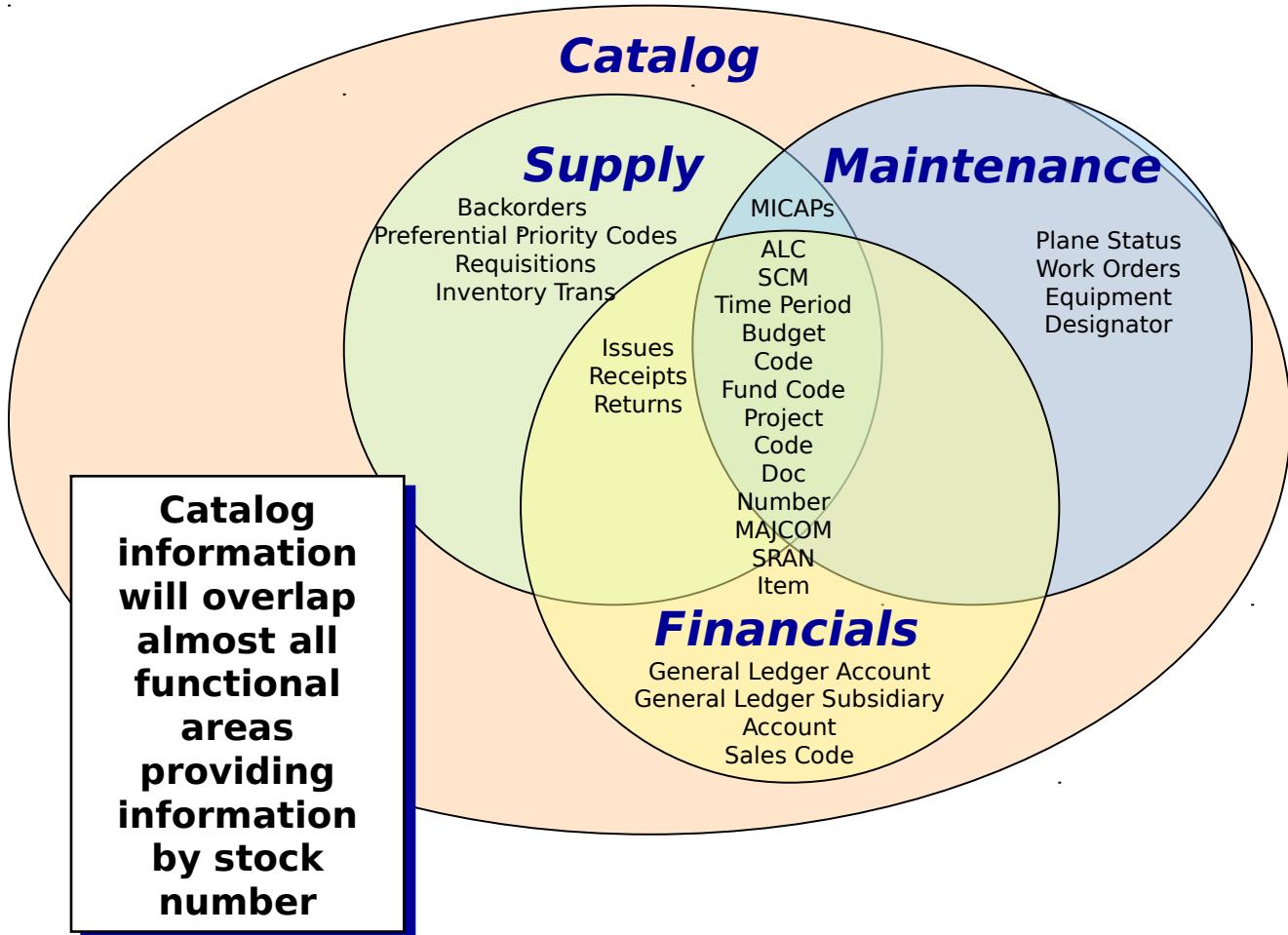
# Supported Business Areas - The Vision (Continued)

## Cross-Functional View of Where EDW (Jan 03)

DW Services - Data Integrat

### Catalog

- Catalog Management Data Table
- Contract Data
- Interchangeability and Substitutability Table
- MOE Rule and User Data Record
- Material Support Division Table
- Munitions Data Table
- Phrase Data Table
- Reference Number Table
- Reparable Item Movement Control Table
- NIIN Standardization Data Table
- Transportation Data Table





# Supported Business Areas - The Vision (Continued)

## U.S. AIR FORCE Cross-Functional View of Where EDW (End of FY-03)

### DW Services - Data Integration

#### ► Requirements

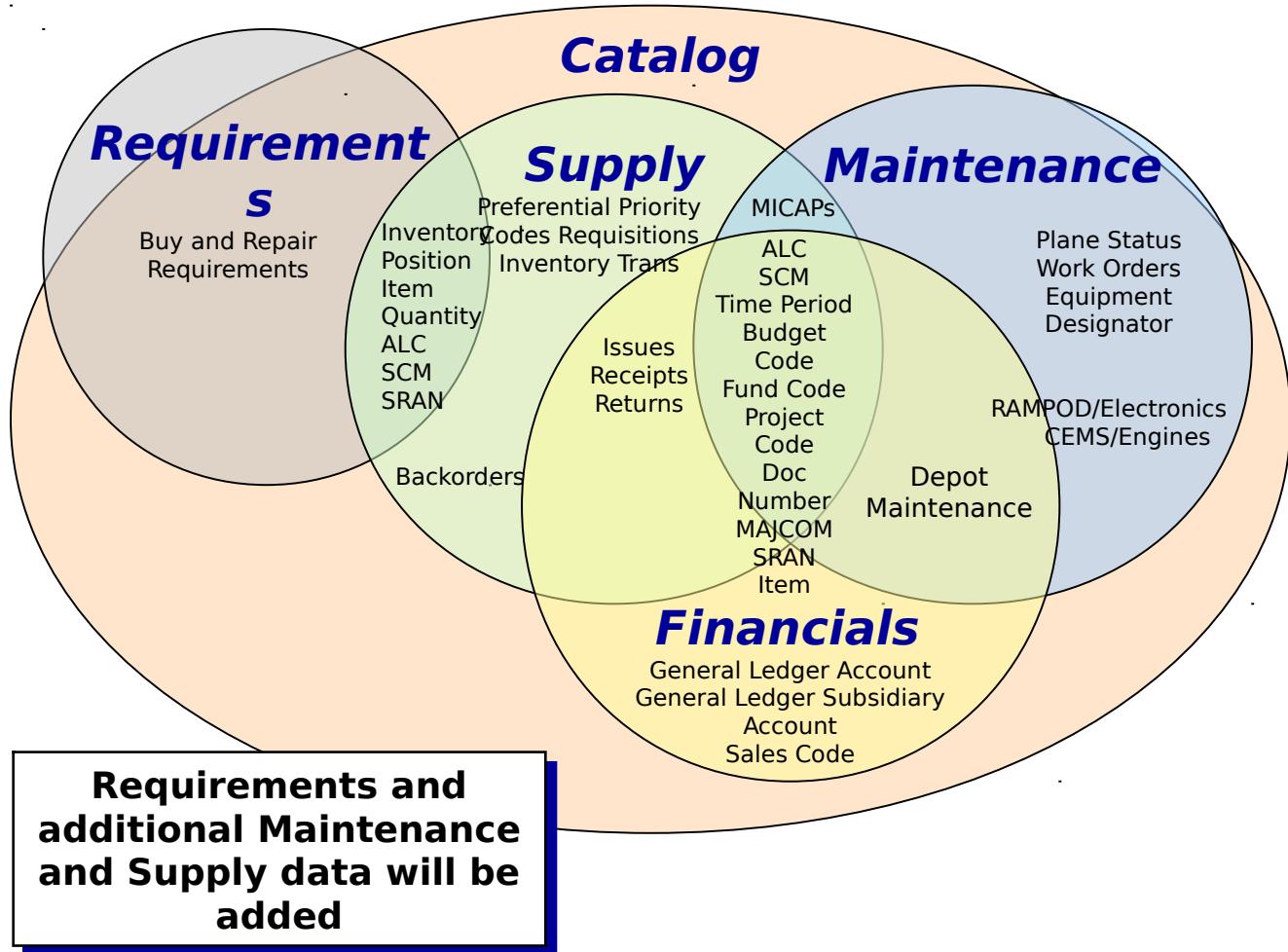
- Adding Requirements data (D200A) will show demand and buy levels against Inventory positions by ALC, SCM, Item, SRAN, etc.

#### Maintenance

- Additional Maintenance data (CEMS) will be added to give a view of electronics, engine and depot maintenance
- Depot maintenance data (G009, G004L, G072D, G019C, A030D, G072A) will be acquired to obtain a view of item repair

#### Supply

- Additional ALC supply data will be added (D035A/K/C/D/E)





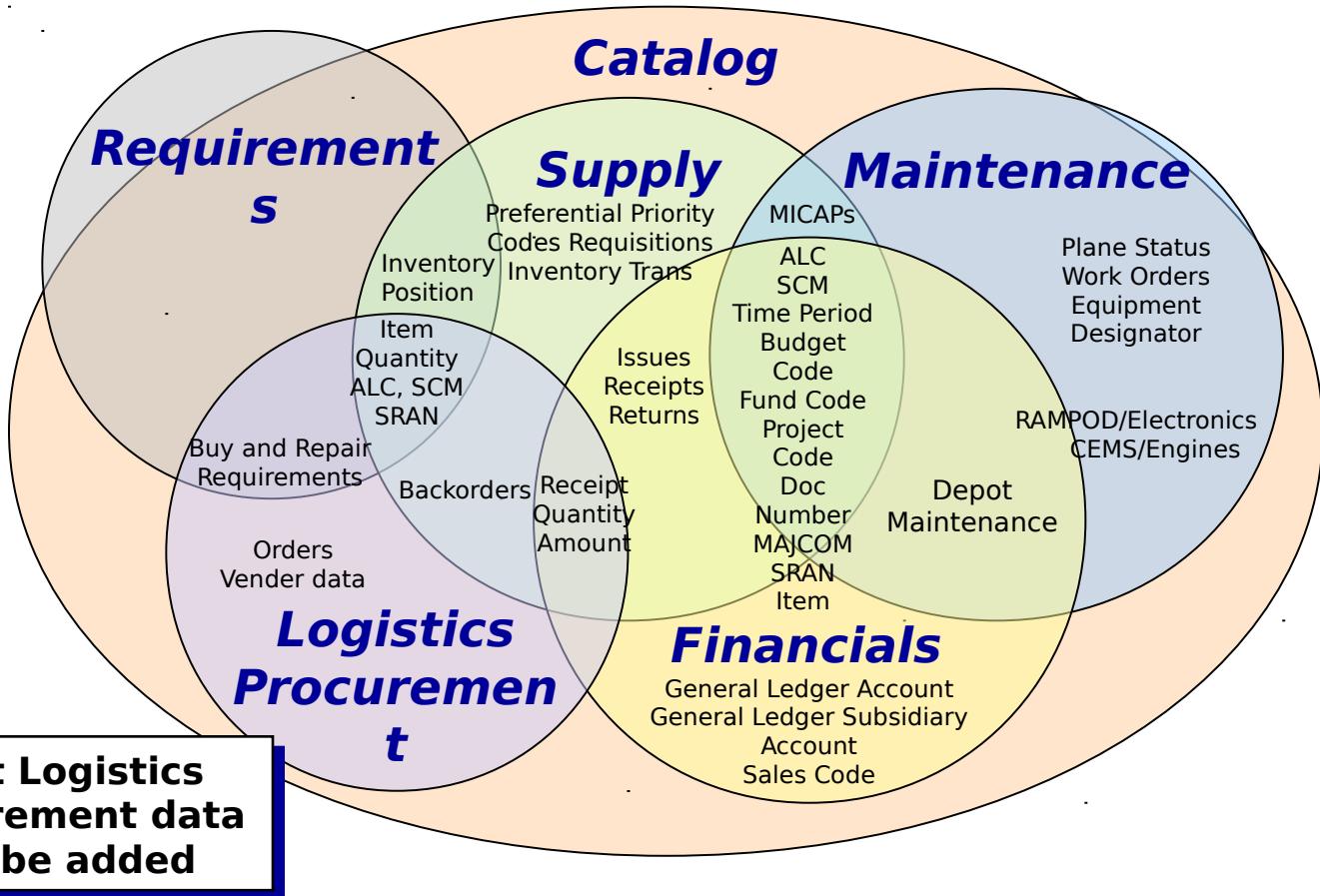
# Supported Business Areas - The Vision (Continued)

## U.S. AIR FORCE Cross-Functional View of Where EDW (End of FY-03)

DW Services - Data Integrat

### ► Logistics Procurement

- Logistics procurement data (J041, J018R, J001) will be layered on and integrated across many of the existing functional areas
- This will provide a view to compare demands to orders, lag time from backorder to vendor order to receipt, etc.
- Improved Aircraft visibility

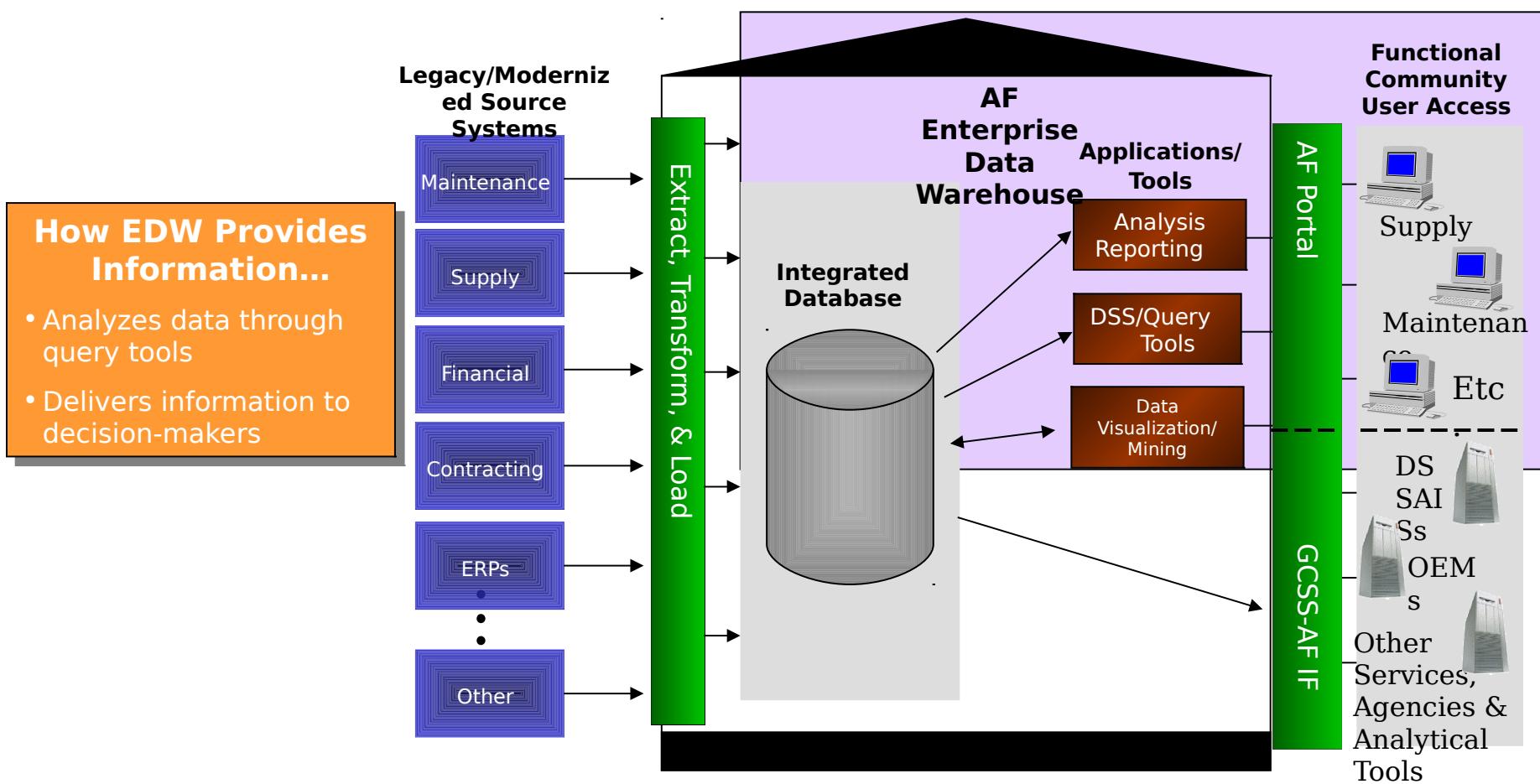




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# EDW As An Information Provider

**A data warehouse enables organizations to gain access to existing enterprise data for analytical and decision-making functions**



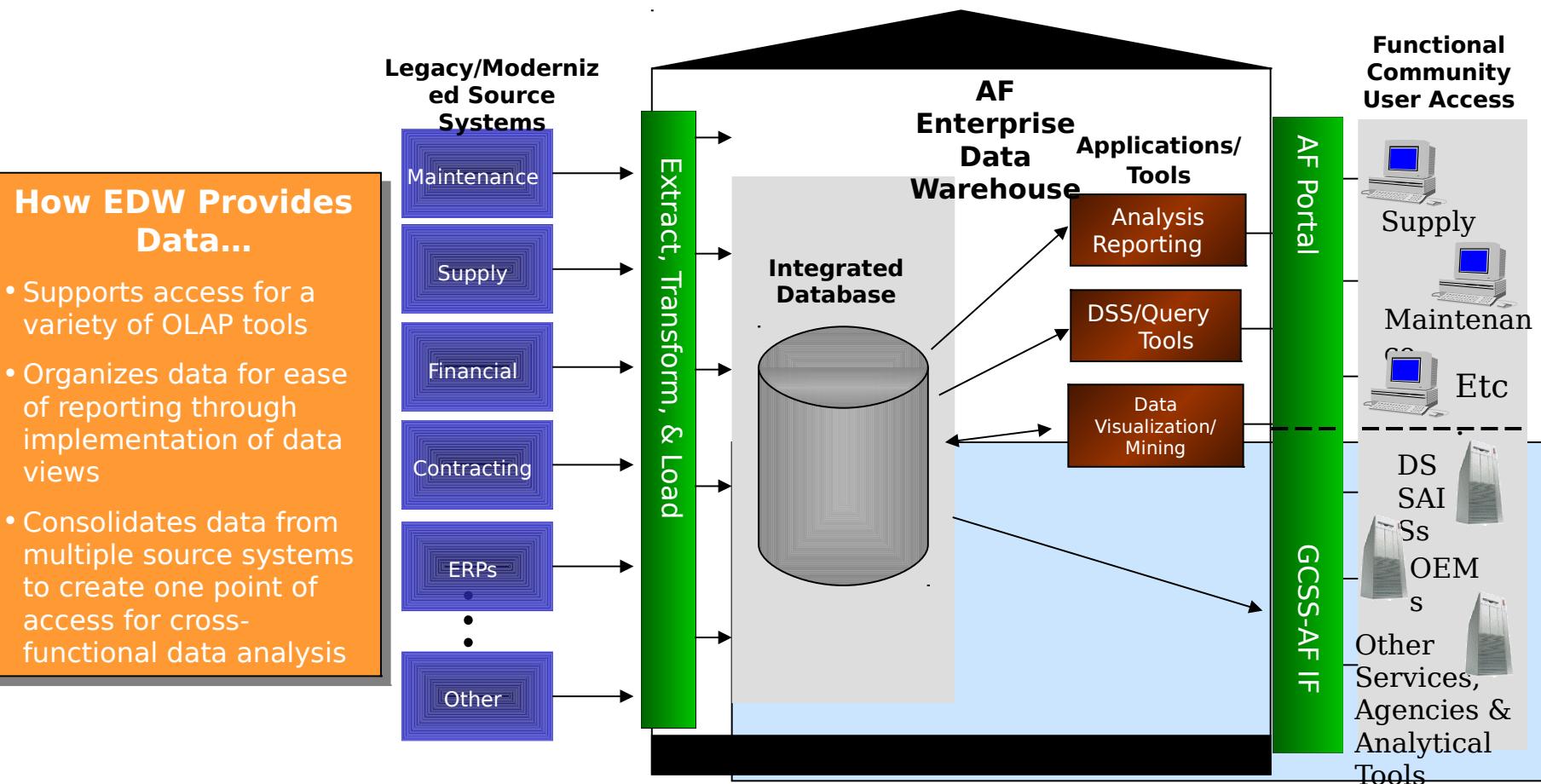


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# EDW As A Data Provider

DW Services - Data Provider

**A data warehouse enables organizations to gain access to existing enterprise data for analytical and decision-making functions**





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# EDW Data Composition By Dec 2002

DW Services - Data Provider

## MAINTENANCE DATA

G099 (REMIS) (Fed by G081 and CAMS)	<ul style="list-style-type: none"><li>▪ Aircraft Inventory, Status, Utilization</li><li>▪ Comm and Electronics</li><li>▪ ATE and Simulator</li></ul>	10+ years of history 500+ million records Near Real Time Frequency AVAILABLE TODAY
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## SUPPLY DATA

Backorder (D035A)	<ul style="list-style-type: none"><li>▪ Backorder Master</li><li>▪ Division Mgr, and Equipment Spec. Codes</li></ul>	Daily History starting 15 Mar 02' Monthly History back to Jan 01' Daily frequency AVAILABLE TODAY
MICAP (D165B)	<ul style="list-style-type: none"><li>▪ Awaiting Parts (AWP)</li><li>▪ MICAP Transaction History Status</li></ul>	Daily History starting 12 Mar 02' Monthly History back to Feb 00' Daily frequency AVAILABLE TODAY
SBSS (D002A)	<ul style="list-style-type: none"><li>▪ Copy of updated WSMIS-SAV SBSS SURGE containing current asset positions, active due-ins/due-outs, repair cycle data, etc.</li><li>▪ SBSS Daily Transactions</li></ul>	Daily frequency <b>Deployed - Nov 02'</b>



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# EDW Data Composition By Dec 2002 (Continued)

DW Services - Data Provide

SUPPLY DATA (Continued)		
MSD Financials (H054, H118, D035J)	<ul style="list-style-type: none"><li>▪ Reparable Working Capital Fund (WCF) Transactions</li><li>▪ WCF Trial Balance</li></ul>	History back to Oct 01' Monthly frequency <b>Completed - On Hold</b>
D200A Inputs	<p>Quarterly data from source systems feeding the D200A forecasting system.</p> <ul style="list-style-type: none"><li>▪ G009 - Contract Data</li><li>▪ SBSS (D002A) - Assets/levels/usage Transactions</li><li>▪ D035A - Quarterly Stock Balance And Consumption Report Data</li><li>▪ D035B - Quarterly Recoverable Demand Extract</li><li>▪ D035C - Reparable Intransit Time Base Order And Ship Time Days</li><li>▪ D035C - Repair Cycle Time</li><li>▪ D035E - Special Level Data</li><li>▪ D087H - D041 War Time Rates Adjusted And Factors</li><li>▪ G004L - Overhaul Usage Transaction</li><li>▪ G019C - Organic Repair Data</li><li>▪ G072D - Contractor Overhaul Usage</li><li>▪ J041 - Due In Acquisition Category One And Two Requirements</li><li>▪ OSVCS/M024B - Interservice Transactions</li><li>▪ W001 - Class A Foreign Military Sales Offer One Requirements</li></ul>	Quarterly frequency <b>AVAILABLE TODAY</b>



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# EDW FY03 Requirements

Program Management

D035 (Stock Control)	<b>Data acquisition of depot wholesale and retail supply transactions/data from the D035 Stock Control System.</b>
Cataloging (D043/43A)	<b>Data acquisition of Parts Catalog (D043/43A) data.</b>
SCM Predictive Analysis Capability	<b>Develop supply chain management (SCM) related analyses:</b> <b>Phase I - Stats Module consisting of statistical types of analyses using a statistical COTS tool</b> <b>Phase II - Data Miner consisting of analyses utilizing a data mining COTS tool</b>
LGIF Price Validation Capability	<b>Develop LGIF price validation functionality in the EDW</b>
SBSS (D002A) Phases I, II and III	<b>Phase II - Data acquisition of retail supply transaction history data from the SBSS (D002A) system's consolidated Oracle database. This establishes a batch interface on a daily frequency.</b> <b>Phase III - Data acquisition of retail supply transactions from the SBSS (D002A) system via the GCSS-AF Audit Trail component. This establishes a near real-time interface where EDW receives the transactions as they occur on the source system.</b>
DAASC	<b>Data acquisition of requisition shipping documents/transactions.</b>



**Represents currently funded initiatives for FY03**



# EDW FY03 Requirements (Continued)

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Program Management

DLA Data	<b>Data acquisition of DLA supply transactions/data from the Defense Logistic Agency (DLA) legacy system (SAMMS).</b>
MSD Financials (Working Capital and Appropriated Funds)	<b>Data acquisition of Working Capital and Appropriated Funds transactions/data from their source systems, Central Procurement Accounting System (CPAS, H103), Financial Inventory Accounting &amp; Billing System (FIABS, D035J), Air Force Stock Fund Accounting (AFSFA, H054), Standard Materiel Accounting System (SMAS, H118), and General Accounting &amp; Finance System (GAFS, H069/BQ).</b>
Parts Procurement Data	<b>Data acquisition of parts procurement transactions/data from the Contracting Business Intelligence System (CBIS) system. CBIS is the single source of Contracting data. CBIS replaces the prior requirement of receiving contracting data from the J041/J018R.</b>
Additional Procurement Data	<b>Acquisition of additional procurement data (J001)</b>
Combat Support Data	<b>Data acquisition of Combat Support Data (acquisition data) directed by GCSS-AF.</b>
RAMPOD	<b>Acquisition of Reliability and Maintainability for Pods.</b>
Wholesale and Depot Supply	<b>Acquisition of Wholesale and Depot Supply data.</b>
Requirements Forecasting	<b>Acquisition of Requirements Forecasting data - Phase II.</b>



**Represents currently funded initiatives for FY03**



# EDW FY03 Requirements (*Continued*)

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Program Management

CEMS Activities 2 - 5	<b>Data acquisition of Comprehensive Engine Maintenance System (CEMS) data.</b>
MERLIN	<b>Interface for Multi-Echelon Resource and Logistics Information Network (MERLIN) - feed from EDW.</b>
CAMS	<b>D&amp;I of Core Automated Maintenance System (CAMS, G054) integration with EDW</b>
WSMIS SAV	<b>Migration of the WSMIS SAV tool so it uses the EDW as its data source instead of the WSMIS data source</b>  <b>HQ AFMC/DR requirement</b>
Transportation Data	<b>Data acquisition of transportation transactions/data from the CMOS system.</b>
Acquisition Data	<b>Data acquisition of Program Management data from the SMART tool.</b>



**Represents currently funded initiatives for FY03**



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# **EDW Requirements Process**

**Program Management**

EDW PMO uses a requirements and configuration management tracking tool (ISMT) to manage EDW requirements from submission to deployment.

- Please submit your requirements to the EDW PMO by contacting one of the following people:
  - Ms. Naomi Butts, Configuration Manager, [Naomi.Butts@wpafb.af.mil](mailto:Naomi.Butts@wpafb.af.mil)
  - Major Paul Reagan, Maintenance Project Lead, [Paul.Reagan@wpafb.af.mil](mailto:Paul.Reagan@wpafb.af.mil)
  - Mr. Mark Klosterman, Supply Project Lead, [Mark.Klosterman@wpafb.af.mil](mailto:Mark.Klosterman@wpafb.af.mil)
- The EDW PMO will then follow up with you to get a clear understanding of what your requirement is:
  - If your requirement requires a small effort, the work will be performed by the EDW O&M team
  - If the requirement cannot be performed under O&M, then it will be documented using a CSRD Form



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# EDW PMO POC Information

Program Management

- **EDW Web Site**
  - <https://edw.day.disa.mil>
  - Access request form for an ID and password can be downloaded from the above site
- **EDW PMO Web Site**
  - <https://www.ilspo.wpafb.af.mil/edw>
- **EDW Help Desk**
  - Available 24x7 for problem reporting and assistance: (DSN 787-3251 or 937-257-3251 or [helpdesk@day.disa.mil](mailto:helpdesk@day.disa.mil)<mailto:helpdesk@day.disa.mil>
- **PMO POCs**
  - **Mike Riley, Acting Program Manager**  
DSN: 674-3067, Com: (937) 904-3067, email: [Mike.Riley@wpafb.af.mil](mailto:Mike.Riley@wpafb.af.mil)
  - **Maj. Paul Reagan, Deputy Program Manager (Maintenance Project Lead)** DSN: 674-2534, Com: (937) 904-2534, email: [Paul.Reagan@wpafb.af.mil](mailto:Paul.Reagan@wpafb.af.mil)
  - **Mark Klosterman, Supply Project Lead**  
DSN: 674-2546, Com: (937) 904-2546, email: [Mark.Klosterman@wpafb.af.mil](mailto:Mark.Klosterman@wpafb.af.mil)



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## Q&A



# EDW Functionality

## Demo

# EDW Backup



# Integrating Data From Multiple Business Areas

## **Development modeled after private sector data Warehousing development efforts – Walmart vs. EDW**

## Data Integrator

**Walmart**

# Air Force EDW

Initial Warehousing Development Efforts – Walmart vs. EDW					Demographics	
					Mark-Downs	
					Mark-Ups	
Walmart	EDW	Year 1	Year 2	Year 3	Year 4	Year 5
					Inventory	Inventory
					POS Forecasts	POS Forecasts
					Seasonal Profiles	Seasonal Profiles
					Corp Fcsts on Order	Corp Fcsts on Order
					P&L	P&L
					Journals	Journals
					Traits	Traits
					Ships	Ships
					POS	POS
					Weather	Weather
					Safety	Safety
					Security Forces	Security Forces
					Civil Engineering	Civil Engineering
					Logistics Plans	Logistics Plans
					Communications & Info	Communications & Info
					Transportation	Transportation
					Munitions	Munitions
					Personnel	Personnel
					Acquisition	Acquisition
					Contracting	Contracting
					Comptroller	Comptroller
					Engines	Engines
					Pod Management	Pod Management
					Depot Maintenance	Depot Maintenance
					Procurement	Procurement
					WCF Management	WCF Management
					Supply Management	Supply Management
Maintenance	Maintenance	Maintenance	Maintenance	Maintenance	Maintenance	Maintenance
Materiel Management	Materiel Management	Materiel Management	Materiel Management	Materiel Management	Materiel Management	Materiel Management
Initial	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
	FY02	FY03	FY04	FY05	FY06	



# EDW Successes

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Background

Current Successes include:

- **Information Provider:**
  - Using Business Objects to allow user communities access to data quickly and reliably
    - A flying-hour report for all ANG aircraft for one month, once took approximately 15 minutes [in the existing source system], but when the same report was executed in the EDW for three months of data, the report returned in five minutes.
  - AFCA currently has Status and Utilization reports set up for entire community
  - AFMC / LGIA regularly uses EDW MICAP and Backorder data
  - AFMC / LGIF regularly performs detailed analysis on EDW MICAP and Backorder data in support of Operation Enduring Freedom
  - The EDW will be a great asset for engine shops as previous history on an engine assists in making repair decisions; the maintenance documentation data is not available in CEMS



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## EDW Successes (*Continued*)

Background

Current Successes include:

- **Data Provider:**
  - Currently Supporting 1 OEM (Lockheed Martin Aero) with Data
    - How many C-5s have had the Smoke Detectors Replaced? (TCTO)
    - What Maintenance was completed before Aircraft was transferred for Overhaul/ upgrade? (REMIS/G081)
    - How many hours by Work Unit Code were conducted in 1987 (REMIS/G081)
    - Are replacement parts failing at a greater rate? (MICAP)
  - HQ AMC/FM currently using Cognos with data from EDW
    - Combine Flying hours data directly with data from other sources to analyze total cost per flying hours
    - Perform analysis on non-standardized Mission Numbers (\$130M not charged to correct customers)

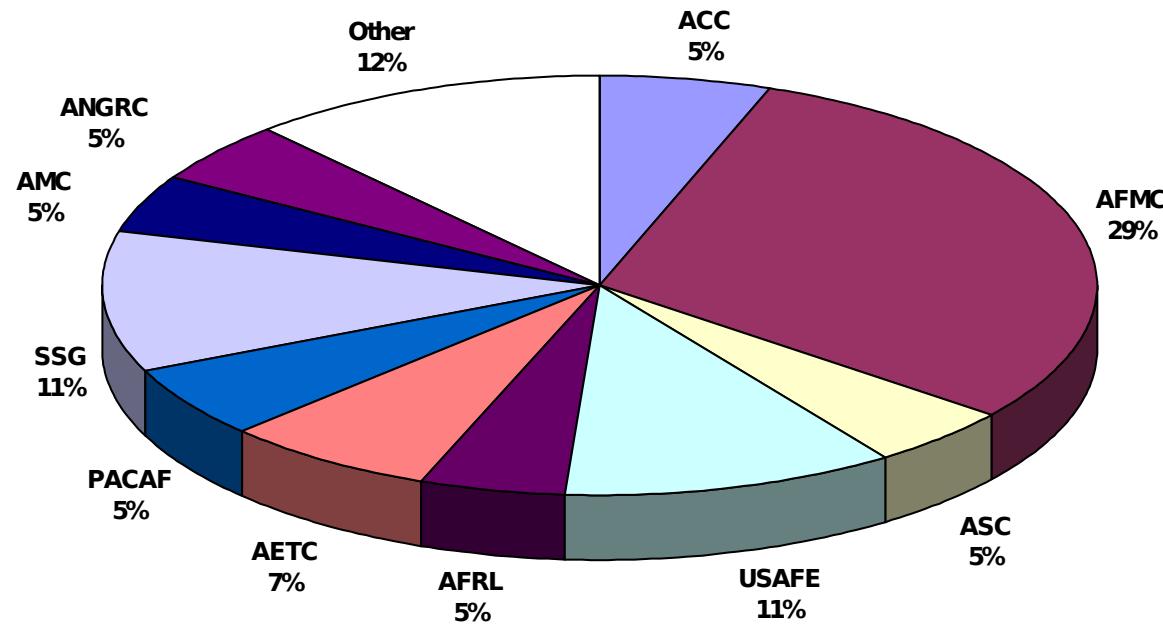


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# Current EDW Trained User Metrics

Program Management

## Percentage by MAJCOM - As of October 2002



**Total Number of Trained Users = 129**

**For more information on how your staff can receive training, please visit the EDW PMO Web site at: <https://www.ilspo.wpafb.af.mil/edw>**

Other\* MAJCOM Locations are defined as MAJCOMs with less than 6 trainees

These MAJCOMs Include: AFSOC, ANGRC, AFRC, AIA, AMC, Other Organizations (RAND Corp.)

NOTE: AFSPC, AFCA have no trained users





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# Supported Services and Agencies

## *Current and Planned*

Data Provider

Time	OLAP	OEMs	OLTP
<b>Now</b>	<ul style="list-style-type: none"><li>▪ AMC / FMBT</li><li>▪ CRIS</li><li>▪ WSMIS-SAV</li><li>▪ SC COP</li></ul>	<ul style="list-style-type: none"><li>▪ Lockheed Martin</li><li>▪ C-5</li><li>▪ C-130</li><li>▪ F-16</li></ul>	<ul style="list-style-type: none"><li>▪ APS</li></ul>
<b>FY 03</b>	<ul style="list-style-type: none"><li>▪ Q303</li></ul>	<ul style="list-style-type: none"><li>▪ Northrop-Grumman<ul style="list-style-type: none"><li>- B-2</li></ul></li><li>▪ Boeing<ul style="list-style-type: none"><li>- C-17</li></ul></li></ul>	<ul style="list-style-type: none"><li>▪ REMIS</li><li>▪ SCS</li><li>▪ WSMIS<ul style="list-style-type: none"><li>- RAM</li><li>- SAM</li><li>- RCAS</li><li>- EXPRESS</li></ul></li><li>▪ ATCUG</li></ul>

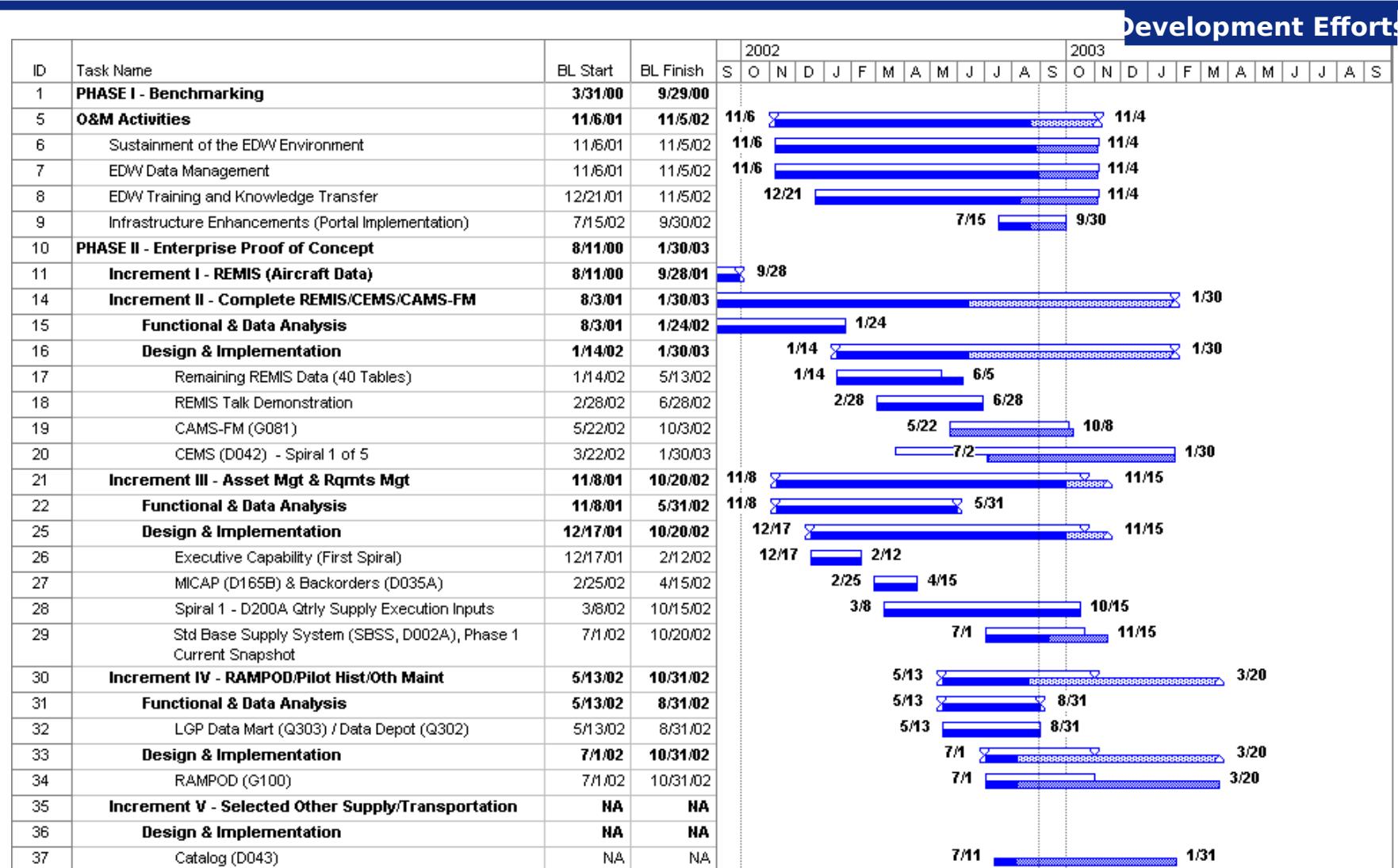


**U.S. AIR FORCE**

# EDW Data Acquisition Plan

## *Integrated Schedule*

**As Of: 31 Aug  
02**





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# EDW Data Acquisition Plan

## Integrated Schedule (Continued)

As Of: 31 Aug  
02

Development Efforts

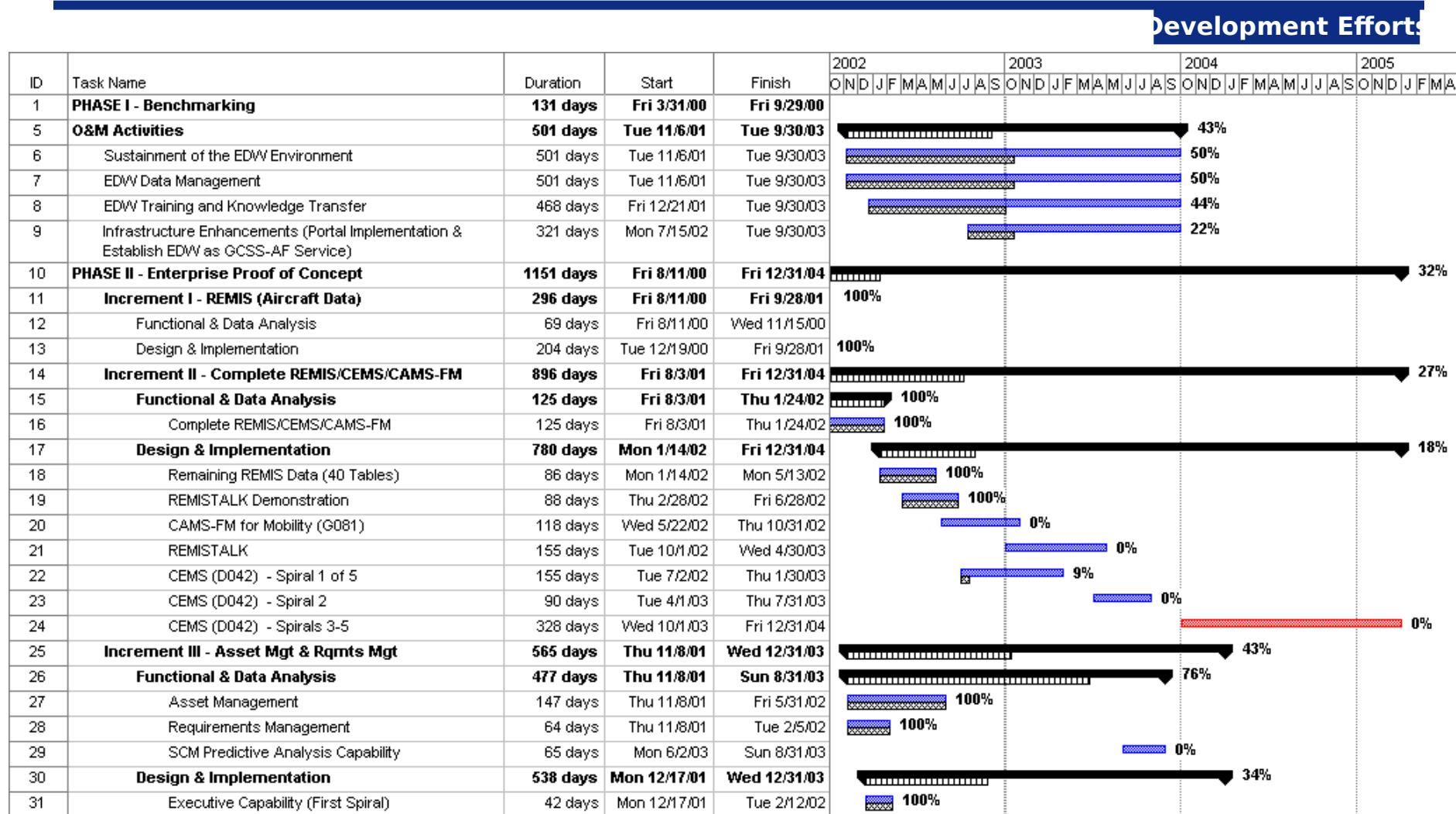
ID	Task Name	BL Start	BL Finish	2002												2003													
				S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	
38	D035A/C/D/K Wholesale & Retail Rcvg & Shipping; Special Support Stock; Recoverable Assbly Mgt	NA	NA													8/16												8/15	
39	<b>Increment VI - Finance/Contracting</b>	5/13/02	10/31/02														5/13												11/5
40	<b>Design &amp; Implementation</b>	5/13/02	10/31/02														5/13												11/5
41	MSD Financial Data - Working Capital Fund	5/13/02	10/31/02														5/13												11/5



# EDW Data Acquisition Plan

## *Planning Schedule*

**As Of: 4 Oct 02**





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# EDW Data Acquisition Plan

## Planning Schedule (Continued)

As Of: 4 Oct 02

### Development Efforts

ID	Task Name	Duration	Start	Finish	2002			2003			2004			2005							
					O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F
30	<b>Design &amp; Implementation</b>	<b>538 days</b>	<b>Mon 12/17/01</b>	<b>Wed 12/31/03</b>																	
31	Executive Capability (First Spiral)	42 days	Mon 12/17/01	Tue 2/12/02																	
32	MICAP (D165B) & Backorders (D035A)	36 days	Mon 2/25/02	Mon 4/15/02																	
33	Requirements Forecasting (D200A), Phase 1 Qtrly Supply Execution Inputs	158 days	Fri 3/8/02	Tue 10/15/02																	
34	Std Base Supply System (D002A), Phase 1 Current Snapshot	162 days	Wed 5/22/02	Tue 12/31/02																	
35	Requirements Forecasting (D200A), Phase 2 Source Data Tables and Output Data	109 days	Fri 11/1/02	Mon 3/31/03																	
36	Std Base Supply System (D002A), Phases 2 & 3	131 days	Thu 1/2/03	Mon 6/30/03																	
37	LGIF Price Analysis Capability	90 days	Tue 4/1/03	Thu 7/31/03																	
38	DAASC (Asset/Requisition Visibility)	86 days	Fri 8/1/03	Fri 11/28/03																	
39	SCM Predictive Analysis Capability (Spiral 1)	88 days	Mon 9/1/03	Wed 12/31/03																	
40	SCM Cross-Functional Analysis Capability (Final Integration Spiral)	88 days	Mon 9/1/03	Wed 12/31/03																	
41	<b>Increment IV - RAMPOD/Pilot Hist/Oth Maint</b>	<b>227 days</b>	<b>Mon 5/13/02</b>	<b>Thu 3/20/03</b>																	
42	<b>Functional &amp; Data Analysis</b>	<b>81 days</b>	<b>Mon 5/13/02</b>	<b>Sat 8/31/02</b>																	
43	LGP Data Mart (Q303) / Data Depot (Q302)	81 days	Mon 5/13/02	Sat 8/31/02																	
44	<b>Design &amp; Implementation</b>	<b>191 days</b>	<b>Mon 7/1/02</b>	<b>Thu 3/20/03</b>																	
45	RAMPOD (G100) Phases I & II	191 days	Mon 7/1/02	Thu 3/20/03																	
46	<b>Increment V - Selected Other Supply/Transportation</b>	<b>366 days</b>	<b>Thu 7/11/02</b>	<b>Fri 11/28/03</b>																	
47	<b>Design &amp; Implementation</b>	<b>366 days</b>	<b>Thu 7/11/02</b>	<b>Fri 11/28/03</b>																	
48	Catalog (D043)	205 days	Thu 7/11/02	Fri 4/18/03																	
49	Wholesale & Depot Supply (D035A, C, D, K)	265 days	Fri 8/16/02	Fri 8/15/03																	
50	WMSIS-SAV	261 days	Thu 9/5/02	Sat 8/30/03																	
51	Defense Logistics Agency (DLA) Distribution Std System (DSS) transactions/data	109 days	Tue 7/1/03	Fri 11/28/03																	
52	<b>Increment VI - Finance/Contracting</b>	<b>390 days</b>	<b>Mon 5/13/02</b>	<b>Fri 10/31/03</b>																	
53	<b>Functional &amp; Data Analysis</b>	<b>108 days</b>	<b>Mon 2/3/03</b>	<b>Mon 6/30/03</b>																	
54	MSD Financial Data - Appropriated Financial Systems (D035J, H118, CPAS, H054, GAFS)	41 days	Mon 2/3/03	Mon 3/31/03																	



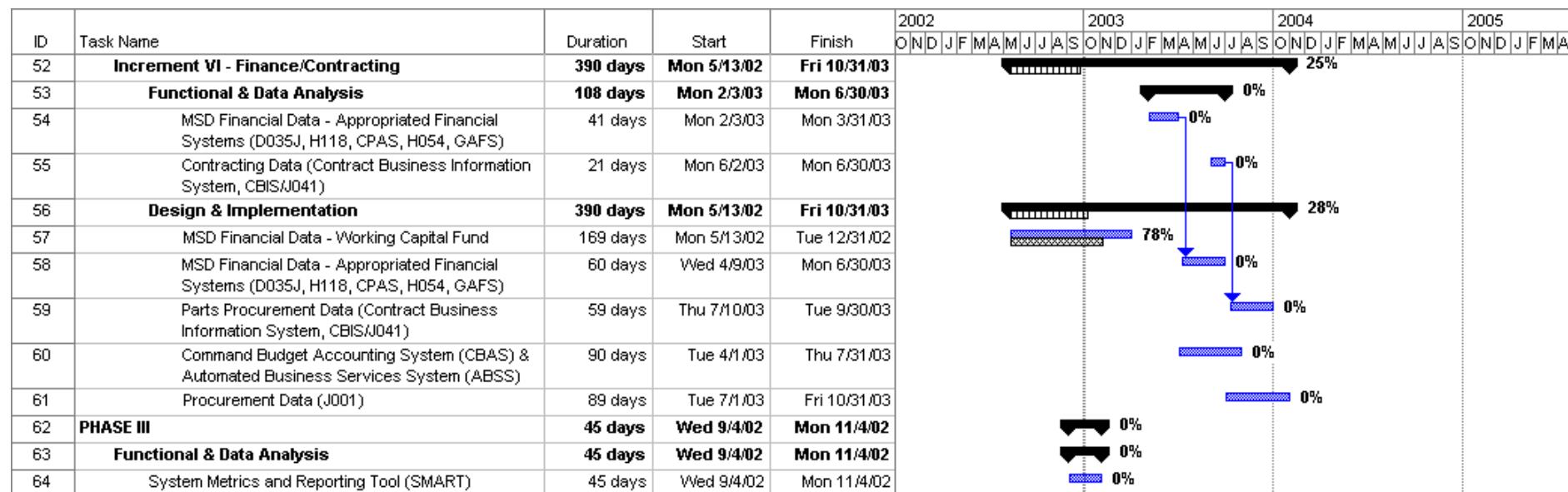
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# EDW Data Acquisition Plan

## Planning Schedule (Continued)

As Of: 4 Oct 02

### Development Efforts

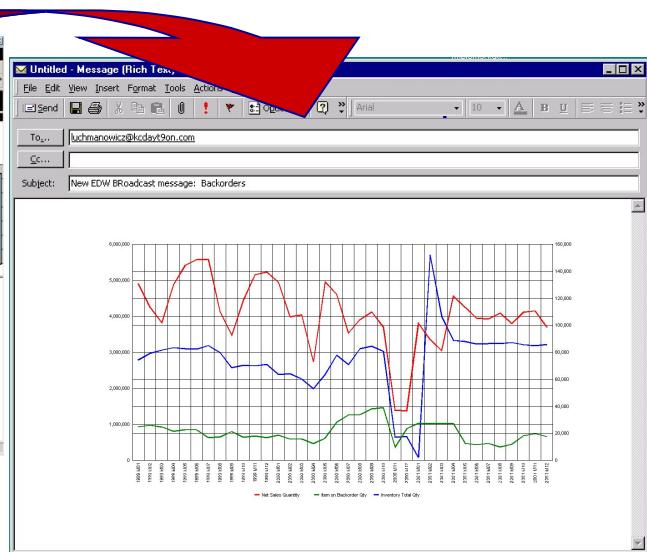
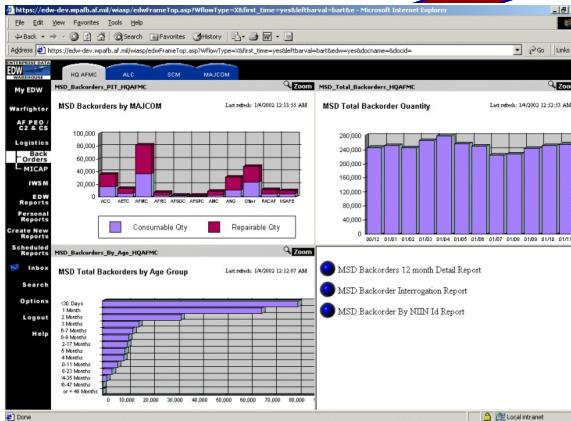


Tasks & Dates As of: 4 Oct 02  
% Complete As of Last Contractor Reporting: 30 Sep 02



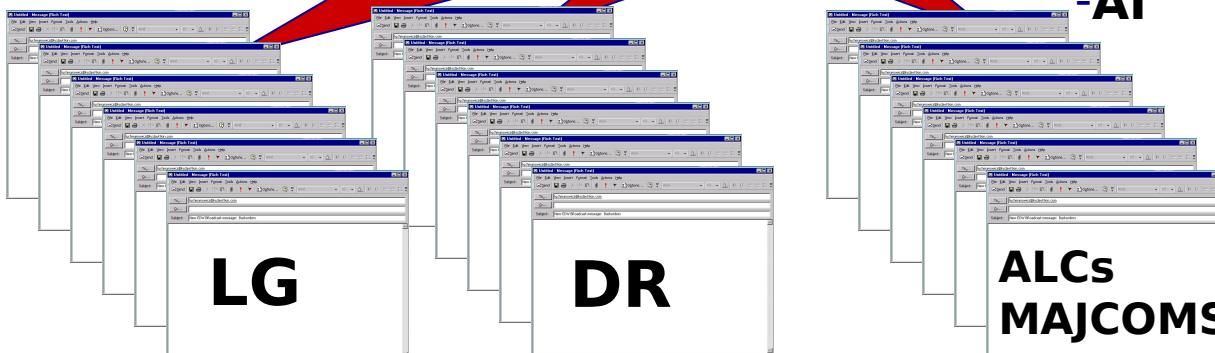
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# Functionality - Broadcaster Technology



## EDW Data Automatically

- Generated
- Executed
- Emailed



*Current Recipients*

*Future Recipients*

## Development Efforts

### Broadcast Criteria

- Now
  - Schedule
  - Thresholds
- Future
  - Process Control
  - Data Mining
  - AI

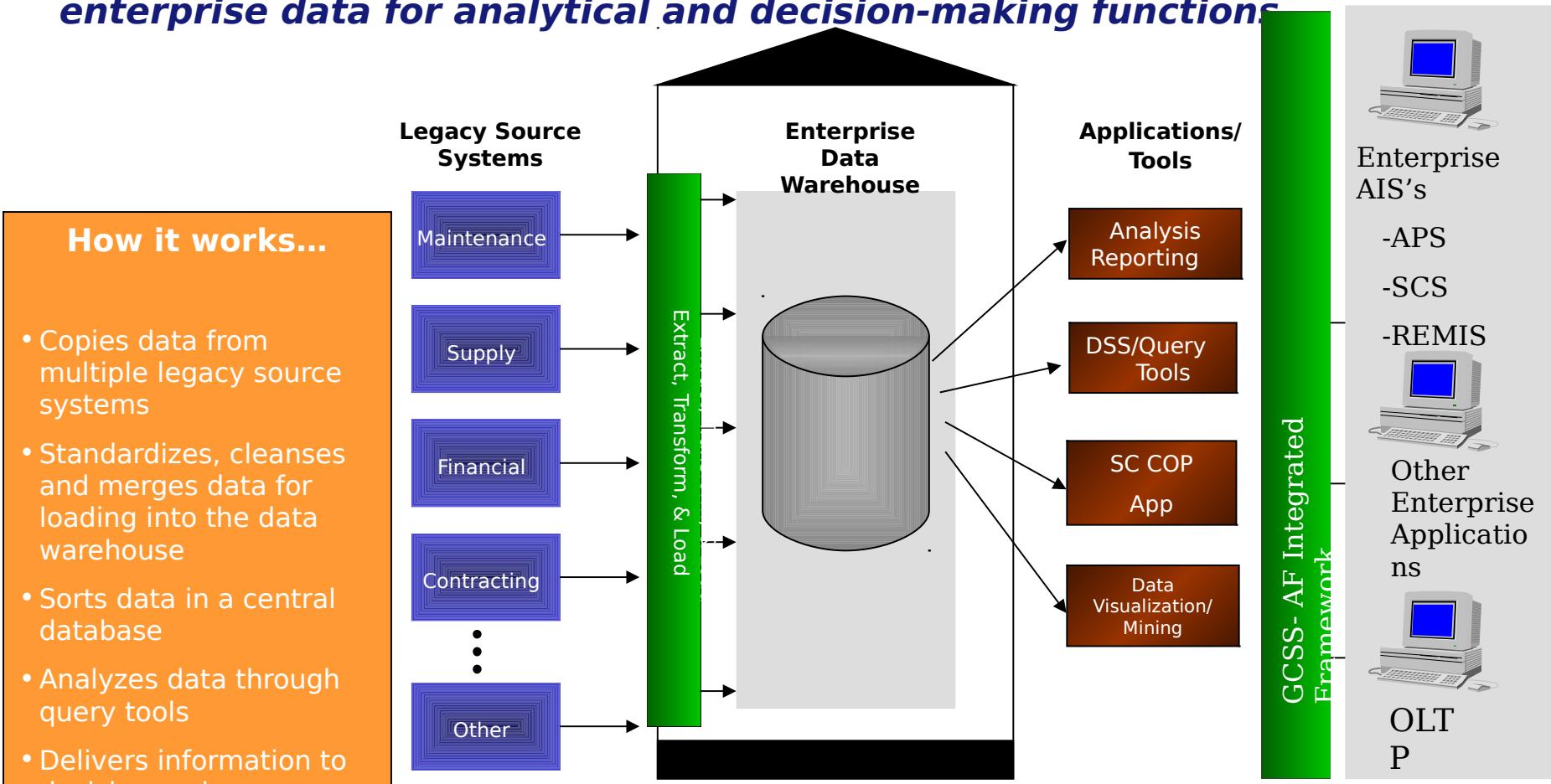


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# EDW is an Information Provider

Background

***A data warehouse enables organizations to gain access to existing enterprise data for analytical and decision-making functions***

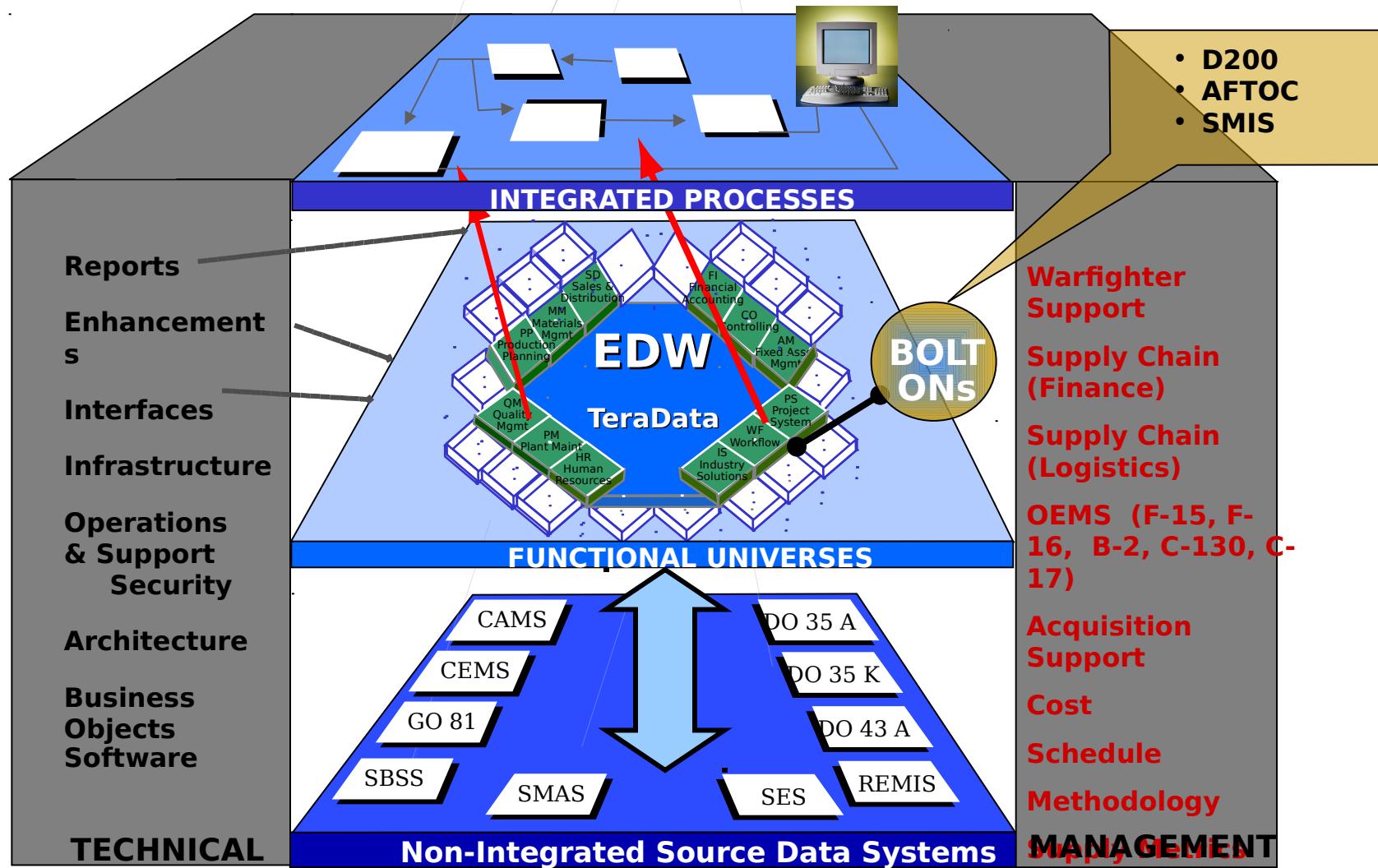


## How it works...

- Copies data from multiple legacy source systems
- Standardizes, cleanses and merges data for loading into the data warehouse
- Sorts data in a central database
- Analyzes data through query tools
- Delivers information to decision-makers



# Integrated Combat Support Picture



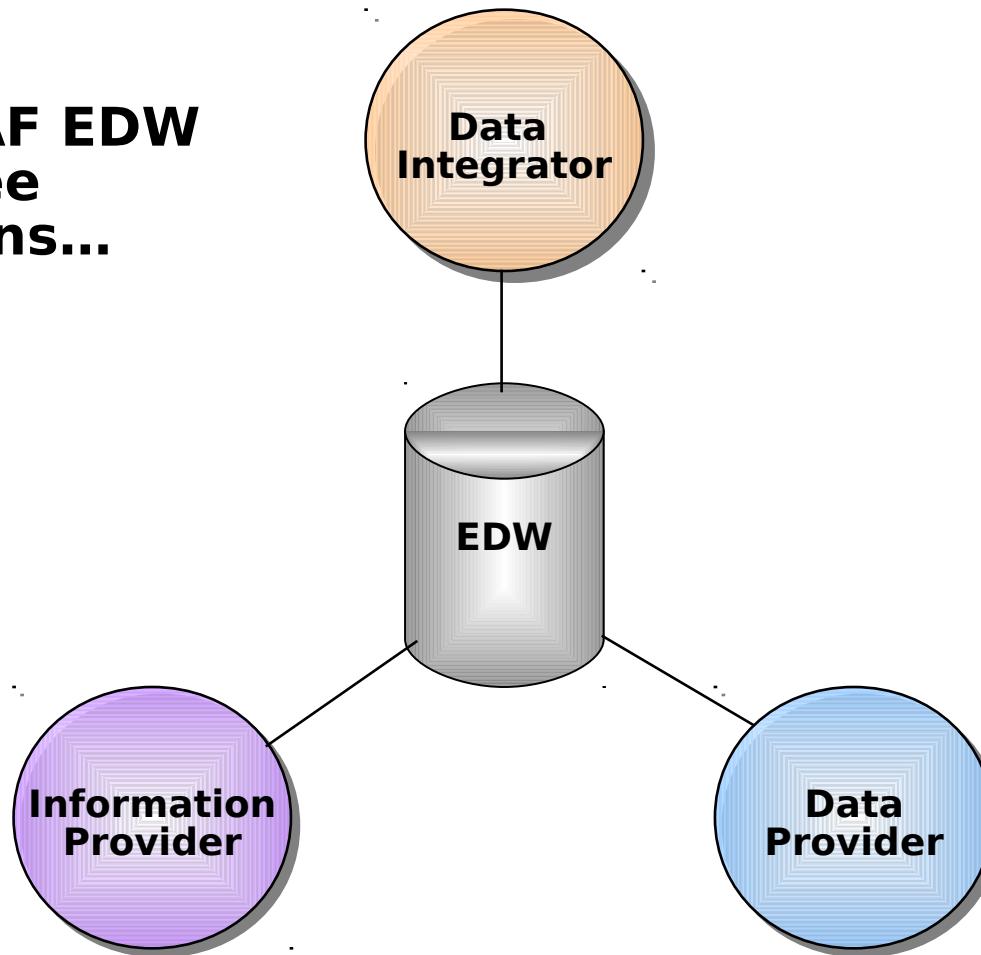


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# What Is the EDW ?

Background

**As a GCSS-AF Service, the AF EDW performs three major functions...**



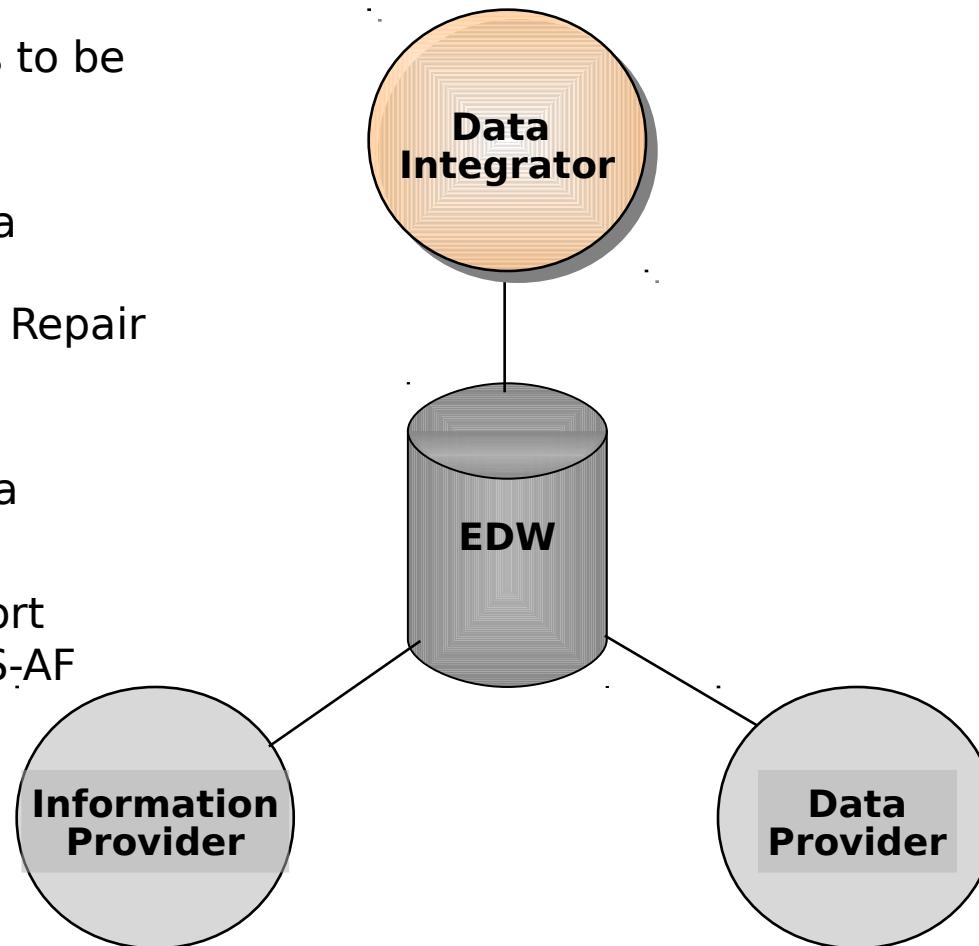


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# EDW As A Data Integrator

Data Integrator

- Functional data types to be included in EDW
  - Weapon System maintenance data includes Depot Maintenance and Repair data
  - Supply Chain Management data
  - Engine data
  - 22 Combat Support functions of GCSS-AF



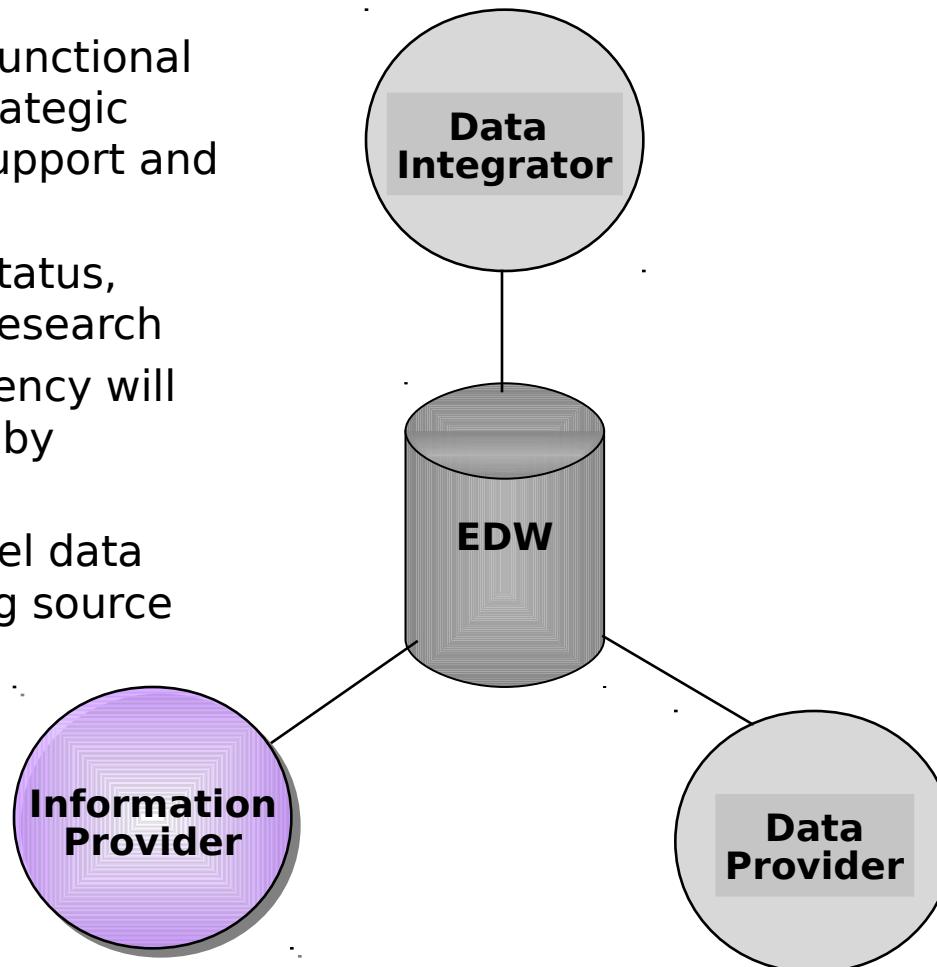


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# Information Provider

Information Provider

- Will provide cross-functional operational and strategic data for decision support and analysis
  - Performance, status, reporting and research
  - Required frequency will be determined by customer
  - Transaction level data from originating source near real time



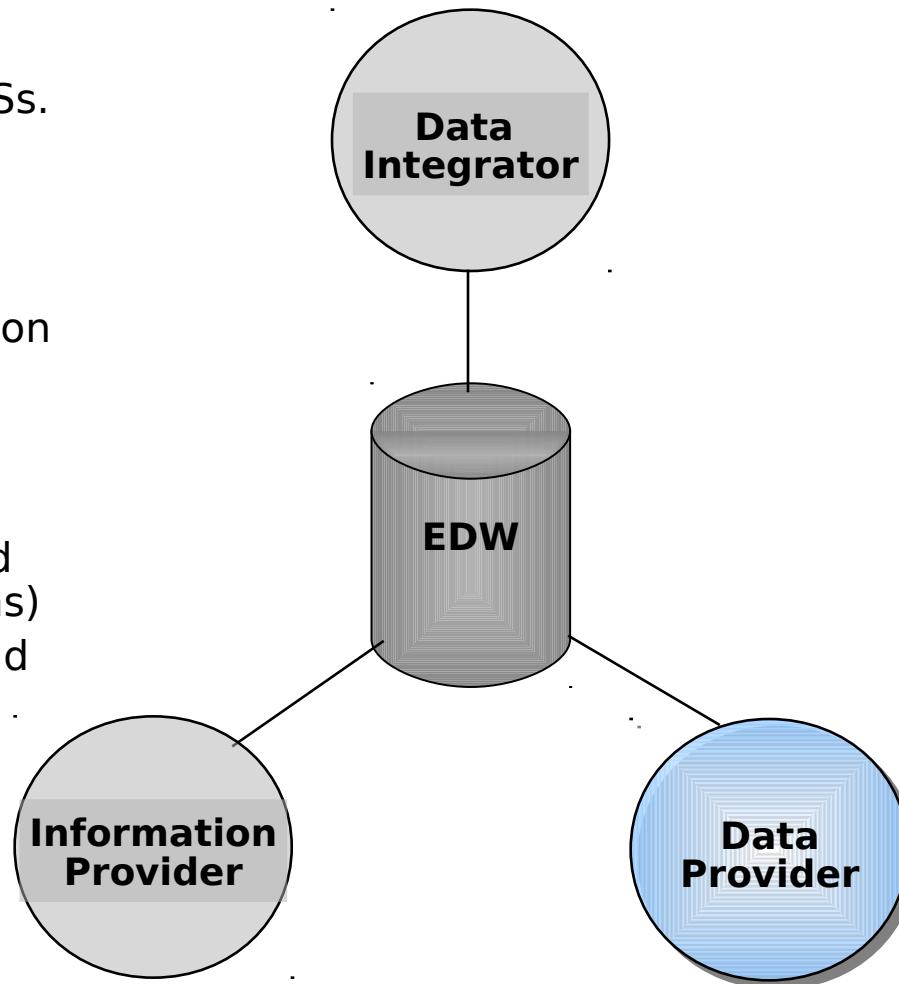


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# EDW As A Data Provider

Data Provider

- EDW does not replace functional or transactional AISs. Application development remains with PMs (Data Services Section)
  - Will support ad-hoc queries, reports, or decision support analysis
  - Minimum amount of business rules in EDW. Business rules, edits and data validation performed by AISs (Business Systems)
  - Decision Support tools and other informational applications (i.e. SC COP) use EDW for data source (API with EDW)





# EDW Board of Customers and Sponsors

## *EDW Future-State Requirements Process - Vision*

Program Management

- **Objective**
  - Provide a common perspective of business opportunity which will give
  - EDW direction to transform those opportunities into capabilities
- **Chair**
  - Ms. O'Neal, HQ USAF/IL
  - Lt. General Coolidge HQ AFMC/CV
- **Members**
  - HQ USAF
  - HQ AFMC
  - MAJCOMs
- **Executive-level EDW Board of Customers**



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# **EDW As A Data Integrator**

## **DW Services - Data Integrator**

- Acquiring and Integrating data from 22 Combat Support (GCSS-AF) Functions:

-Acquisition	-Chaplain Service	-Civil
Engineering		
-Communications & Information	-Comptroller	-Contracting
-Health Services	-Legal	-Munitions
-Logistics Plans		-Materiel Management
Maintenance		-
-OSI	-Personnel	-Public Affairs
-Safety	-Quality & Manpower	-Security Forces
-Services	-Space Support	-Supply
-Transportation		



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# EDW Requirements Process

Requirements follow 1 of 3 paths:

Program Management

1.



**Request for:**

- System-to-System Interface
- Analysis Capability
- Data Acquisition
- Etc.

Customer / outside org documents their requirement in a CSRD(AFMC Form 321) and submits it to the EDW PMO

EDW Developer produces tech solution (ROM) containing scope, cost and schedule

CCB Review Process  
Includes EDW customer(s) funding the requirement

Confirmation and Follow-up with client test team

Once approved, Design and Implementation task is scheduled and tracked via ISMT

2.



EDW Developer conducts Formal Functional and Data Analysis (F&A) for a specified business area cited by customer. For example, Maintenance or Supply Business Area

EDW Developer produces Implementation Plan (IP) containing scope, cost and schedule

3.



**New User Requesting:**

- Ad Hoc Query

New user submits DISA Form 41  
(located on the EDW PMO Web site)

Once approved, new user provided with ID and password (usually < 2 days)



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# EDW Requirements Process

Program Management

- EDW PMO uses a requirements and configuration management tracking tool (ISMT) to manage EDW requirements from submission to deployment.
  - Please submit your requirements to the EDW PMO by contacting one of the following people:
    - Ms. Naomi Butts, Configuration Manager, [Naomi.Butts@wpafb.af.mil](mailto:Naomi.Butts@wpafb.af.mil)
    - Major Paul Reagan, Maintenance Project Lead, [Paul.Reagan@wpafb.af.mil](mailto:Paul.Reagan@wpafb.af.mil)
    - Mr. Mark Klosterman, Supply Project Lead, [Mark.Klosterman@wpafb.af.mil](mailto:Mark.Klosterman@wpafb.af.mil)
  - The EDW PMO will then follow-up with you to get a clear understanding of what your requirement is
    - If your requirement requires a small effort, the work will be performed by the EDW O&M team
    - If the requirement can't be performed under O&M, then it follows the following process...  
*In the g r i d y, S e r v i c e - E x c e l l e n c e*